

#3

FIG. 1A

1 agggagagggc agtgaccatg aaggctgtgc tgcttgccct gttgatggca
51 ggcttgggccc tgcagccagg cactgccctg ctgtgctact cctgcaaagc
101 ccaggtgagc aacgaggact gcctgcaggt ggagaactgc acccagctgg
151 gggagcagtg ctggaccgcg cgcattccgcg cagttggcct cctgaccgtc
201 atcagcaaag gctgcagctt gaactgctg gatgactcac aggactacta
251 cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca
301 gcggggccca tgccctgcag ccggtgccc ccattccttg gctgctccct
351 gcactcgccc tgctgctctg gggacccggc cagctatagg ctctgggggg
401 ccccgctgca gccacactg ggtgtggtgc cccaggcctt tgtgccactc
451 ctcacagaac ctggcccagt gggagcctgt cctggttcct gaggcacatc
501 ctaacgcaag tttgaccatg tatgtttgca ccccttttcc ccnaaccctg
551 accttcccat gggccttttc caggattccn accnggcaga tcagttttag
601 tganacanat ccgcntgcag atggccctc caaccnttn tgttgntggt
651 tccatggccc agcattttcc acccttaacc ctgtgttcag gcacttnttc
701 ccccaggaag ccttccctgc ccacccatt tatgaattga gccaggtttg
751 gtccgtggtg tccccgcac ccagcagggg acaggcaatc aggagggccc
801 agtaaaggct gagatgaagt ggactgagta gaactggagg acaagagttg
851 acgtgagttc ctgggagttt ccagagatgg ggcctggagg cctggaggaa
901 ggggccaggc ctcacatttg tgggntccc gaatggcagc ctgagcacag
951 cgtaggccct taataaacac ctgttgata agccaaaaaa aaaaaaaa

FIG. 1B

MKAVLLALLMAGLALQPGTALLCYSCAQVSNECLQV
ENCTQLGEQCWTARIRAVGLLTVISKGCSLNCVDDS
QDYVVGKKNITCCDTLDCNASGAHALQPAAAILALLPAL
GLLLWGPGQL

FIG. 2

1 ATGAAGACAGTTTTTTTTATCCTGCTGGCCACCTACTTAGCCCTGCATCCAGGTGCTGCT
 -----+-----+-----+-----+-----+-----+ 60
 TACTTCTGTCAAAAAAATAGGACGACCGGTGGATGAATCGGGACGTAGGTCCACGACGA

 M K T V F F I L L A T Y L A L H P G A A

 61 CTGCAGTGCTATTCATGCACAGCACAGATGAACAACAGAGACTGTCTGAATGTACAGAAC
 -----+-----+-----+-----+-----+-----+ 120
 GACGTACAGATAAGTACGTGTCGTGTCTACTTGTGTCTCTGACAGACTTACATGTCTTG

 L Q C Y S C T A Q M N N R D C L N V Q N

 121 TGCAGCCTGGACCAGCACAGTTGCTTTACATCGCGCATCCGGGCCATTGGACTCGTGACA
 -----+-----+-----+-----+-----+-----+ 180
 ACGTCGGACCTGGTCGTGTCAACGAAATGTAGCGCGTAGGCCCGGTAACCTGAGCACTGT

 C S L D Q H S C F T S R I R A I G L V T

 181 GTTATCAGTAAGGGCTGCAGCTCACAGTGTGAGGATGACTCGGAGAACTACTATTTGGGC
 -----+-----+-----+-----+-----+-----+ 240
 CAATAGTCATTCCCGACGTCGAGTGTCACTCCTACTGAGCCTCTTGATGATAAACCCG

 V I S K G C S S Q C E D D S E N Y Y L G

 241 AAGAAGAACATCACGTGCTGCTACTCTGACCTGTGCAATGTCAACGGGGCCACACCCTG
 -----+-----+-----+-----+-----+-----+ 300
 TTCTTCTGTAGTGACGACGATGAGACTGGACACGTTACAGTTGCCCGGGTGTGGGAC

 K K N I T C C Y S D L C N V N G A H T L

 301 AAGCCACCCACACCCTGGGGCTGCTGACCGTGTCTGACGCTGTTGCTGTGGGGCTCC
 -----+-----+-----+-----+-----+-----+ 360
 TTCGGTGGGTGGTGGGACCCGACGACTGGCACGAGACGTCGGACAACGACACCCCGAGG

 K P P T T L G L L T V L C S L L L W G S

 361 AGCCGTCTGTAGGCTCTGGGAGAGCCTACCATAGCCCGATTGTGAAGGGATGAGCTGCAC
 -----+-----+-----+-----+-----+-----+ 420
 TCGGCAGACATCCGAGACCCTCTCGGATGGTATCGGGCTAACACTTCCCTACTCGACGTG

 S R L *

 421 TCCACCCACCCCCACACAGG
 -----+-----+ 441
 AGGTGGGGTGGGGTGTGTCC

495249 6343363

[illegible]

1	M	K	I	F	L	P	V	L	L	A	A	L	L	G	V	E	R	A	S	S	hSCA-2
1	M	K	A	V	L	L	A	L	L	M	A	G	L	A	L	Q	P	G	T	A	hPSCA
1	M	K	T	V	L	F	L	L	L	A	T	Y	L	A	L	H	P	G	A	A	mPSCA

21 L M C F S C L N Q K S N* L Y C L K P T I
21 L L C Y S C K A Q V S N* E D C L Q V E N*
21 L Q C Y S C T A Q M N N* R D C L N V Q N*

41 C S D Q D N Y C V T V S A S A G I G N L
41 C T Q L G E Q C W T A R I R A V G L L T
41 C S L D Q H S C F T S R I R A I G L V T

61 V T F G H S L S K T C S P A C P I P E G
61 V - - - - - I S K G C S L N C V D D S Q
61 V - - - - - I S K G C S S Q C E D D S E

81 V N V G V A S M G I S C C Q S F L C N*F
76 D Y Y V G K K - N* I T C C D T D L C N* A
76 N Y Y L G K K - N* I T C C Y S D L C N* V

101 S A A D G G L R A S V T L L G A G L L L
95 S G A H A L Q P A A A I L A L L P A L G
95 N G A H T L K P P T T L G L L T V L C S

121	S	L	L	P	A	L	L	R	F	G	P
115	L	L	L	W	G	P	G	Q	L	-	-
115	L	L	L	W	G	S	S	R	L	-	-

FIG. 4

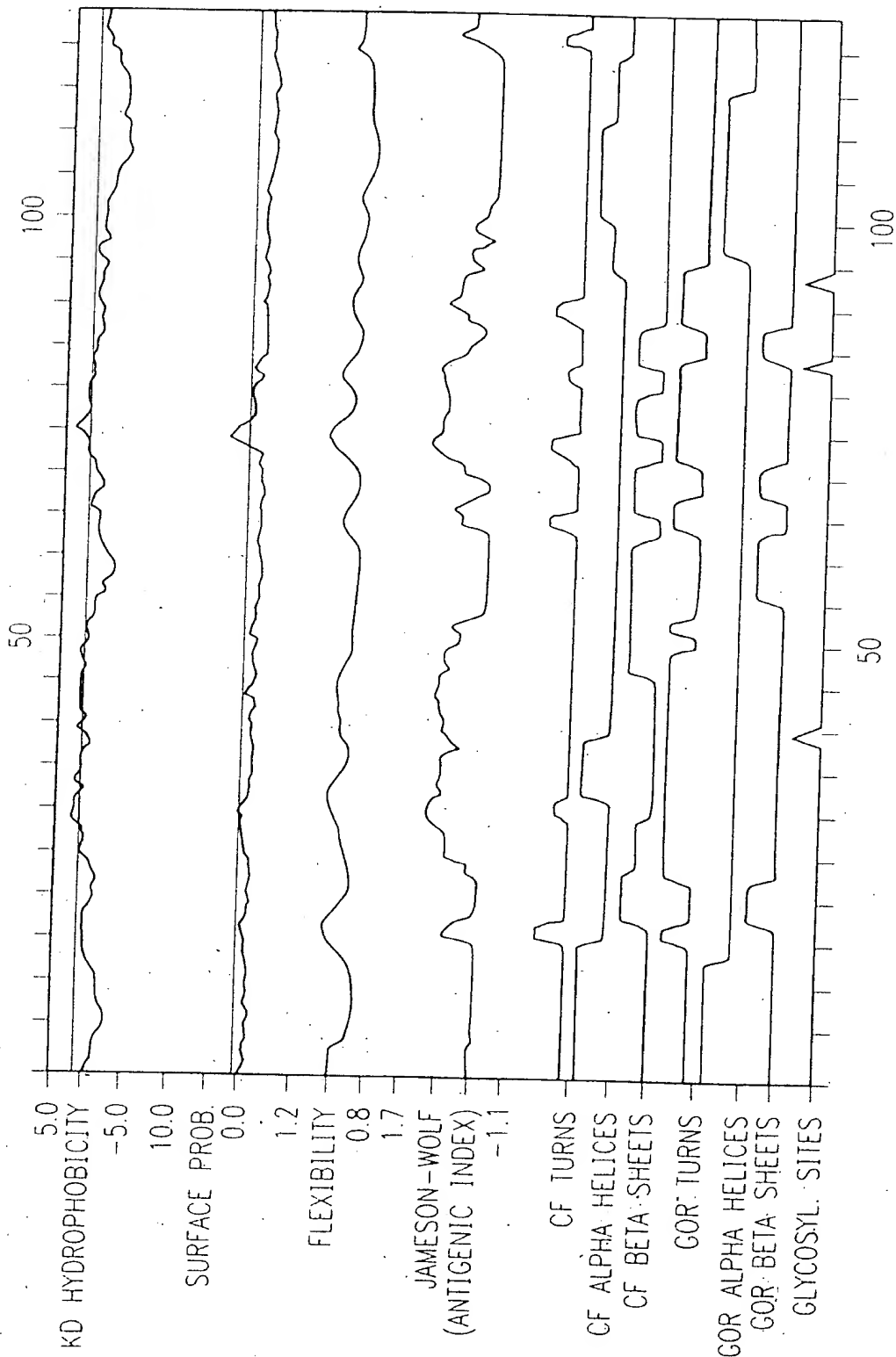
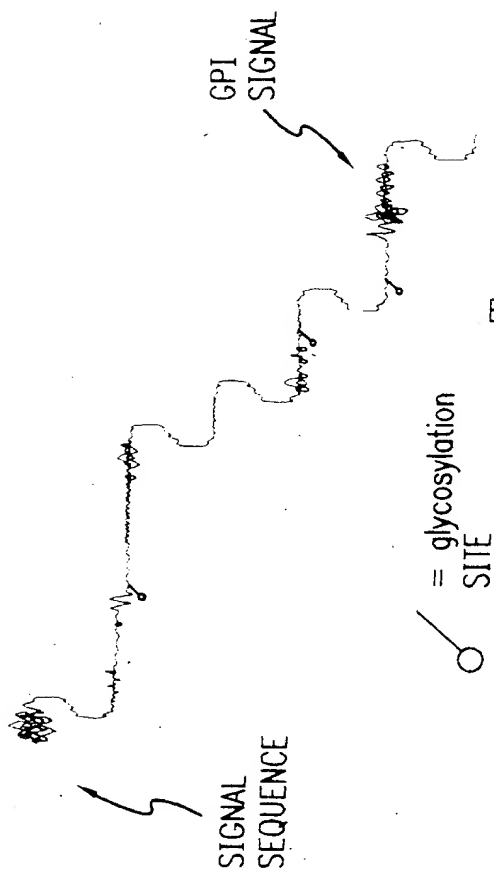


FIG. 5



LAPC9
S. INTESTINE
TESTIS
KIDNEY
KIDNEY
BLADDER CARCINOMA
BLADDER
BLADDER
PROSTATE
PROSTATE
PROSTATE

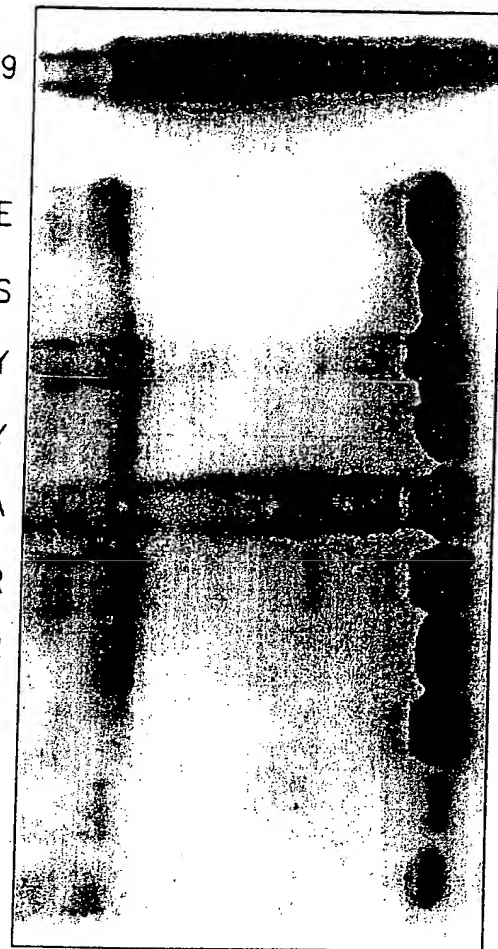


FIG. 6

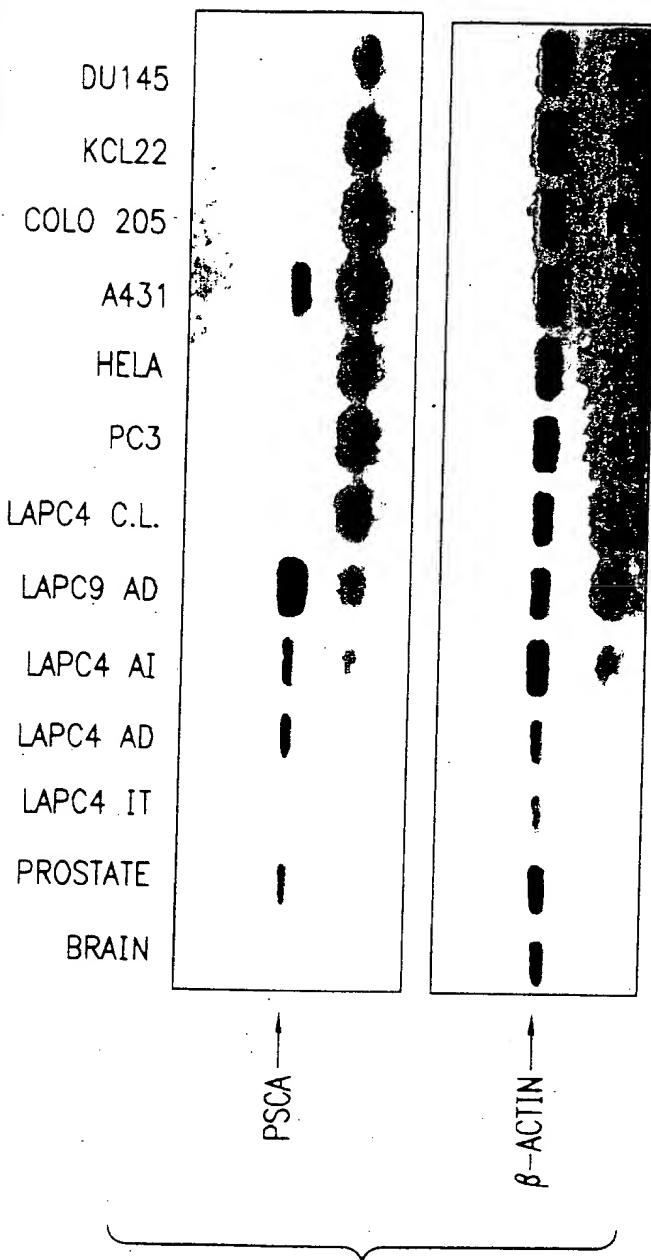
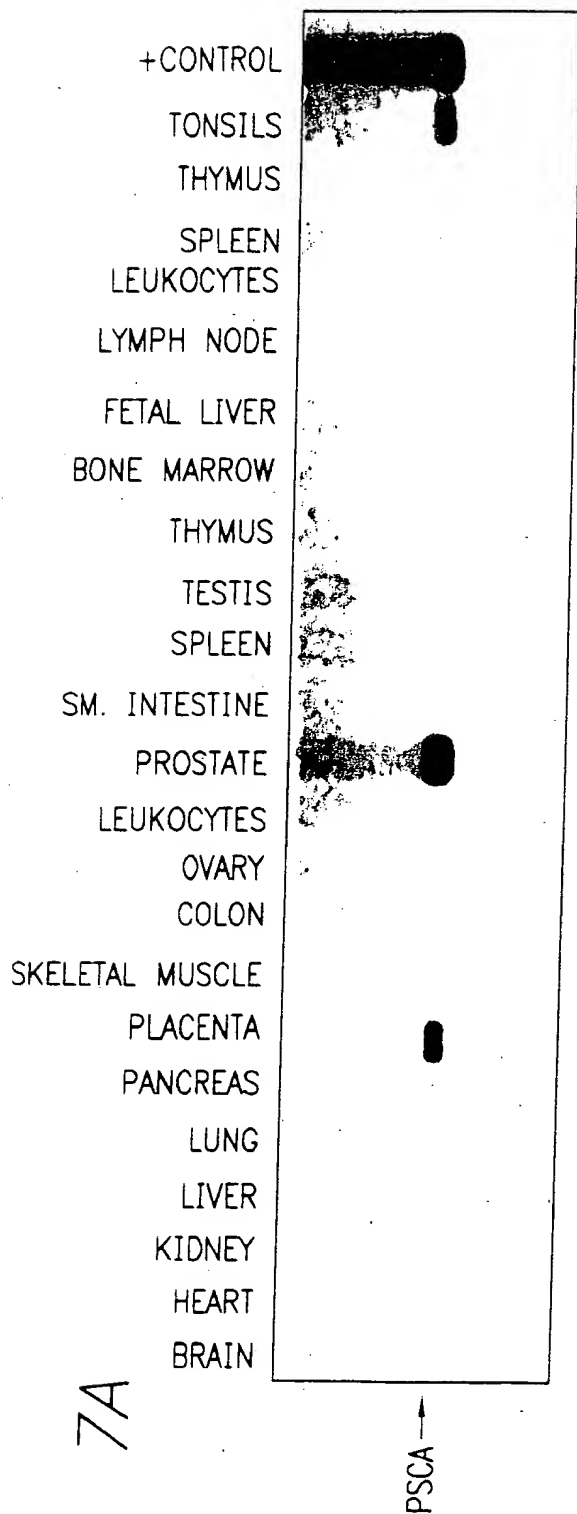


FIG. 8A

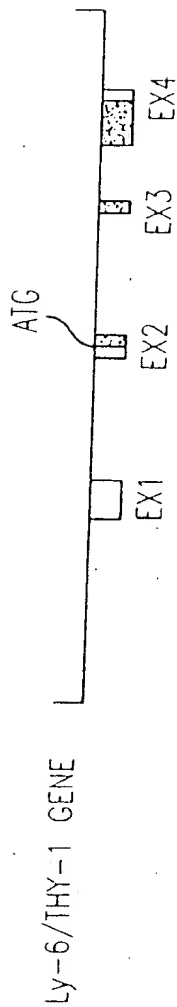


FIG. 8B

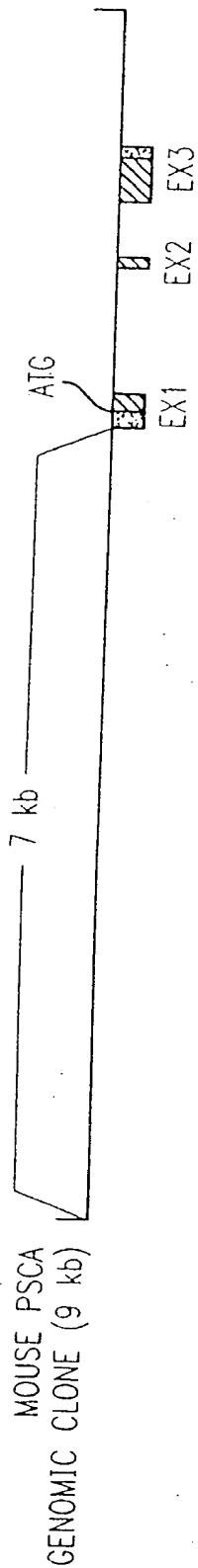
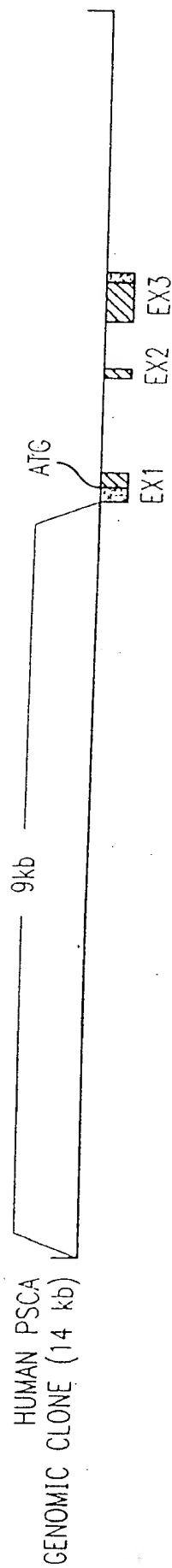


FIG. 8C



40520" 69453000

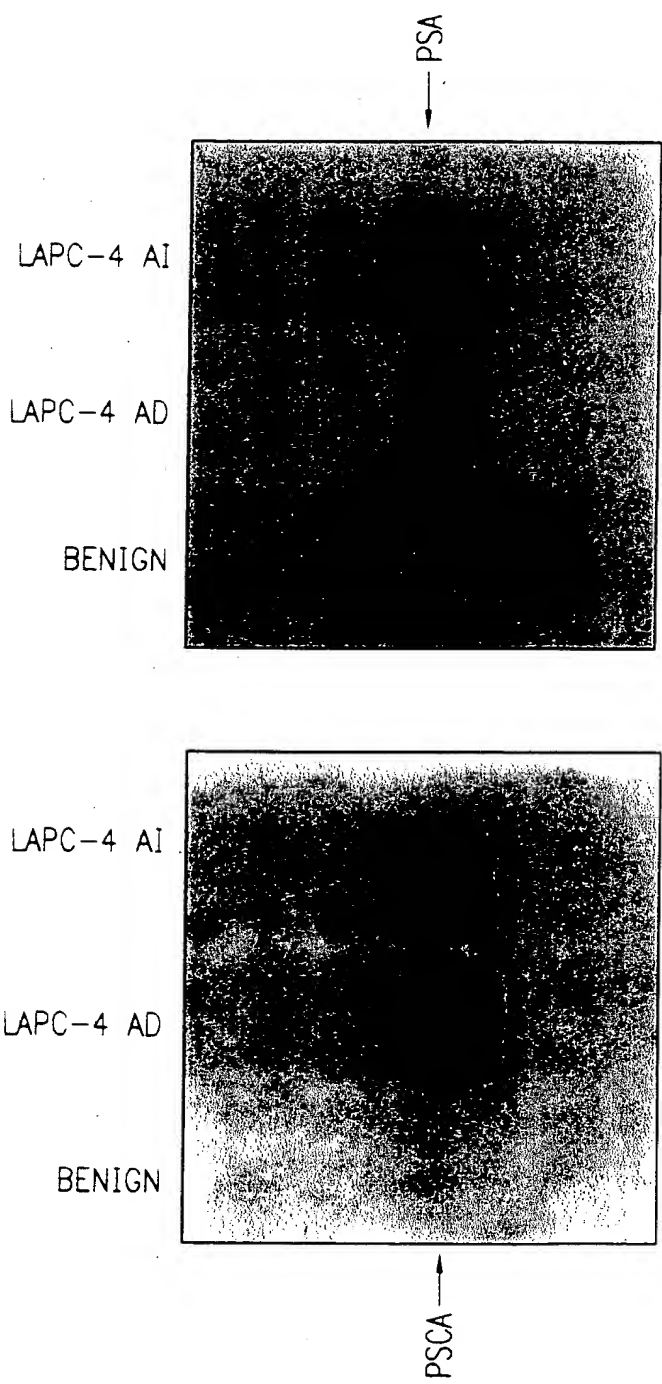


FIG. 9A

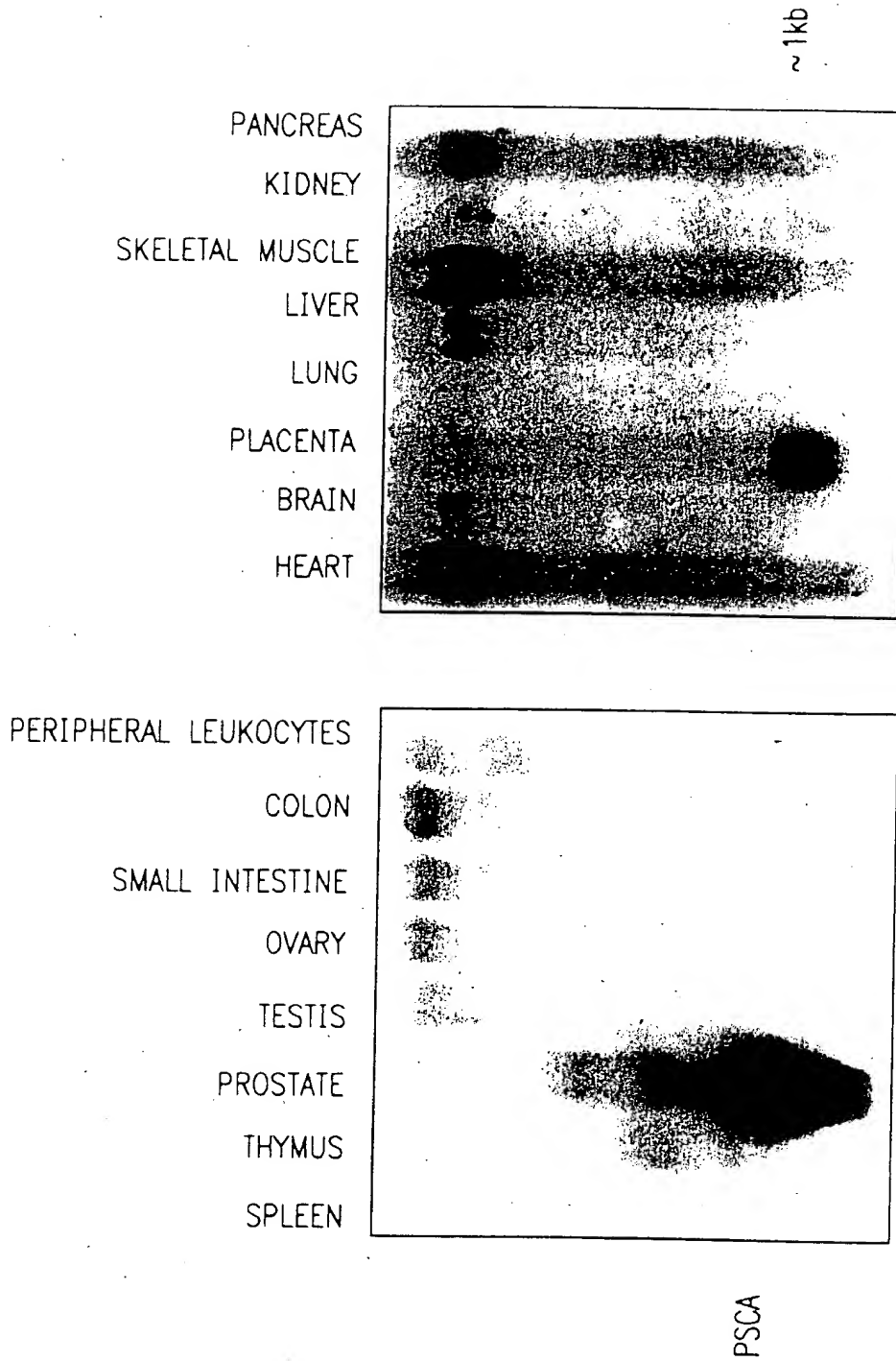


FIG. 9B

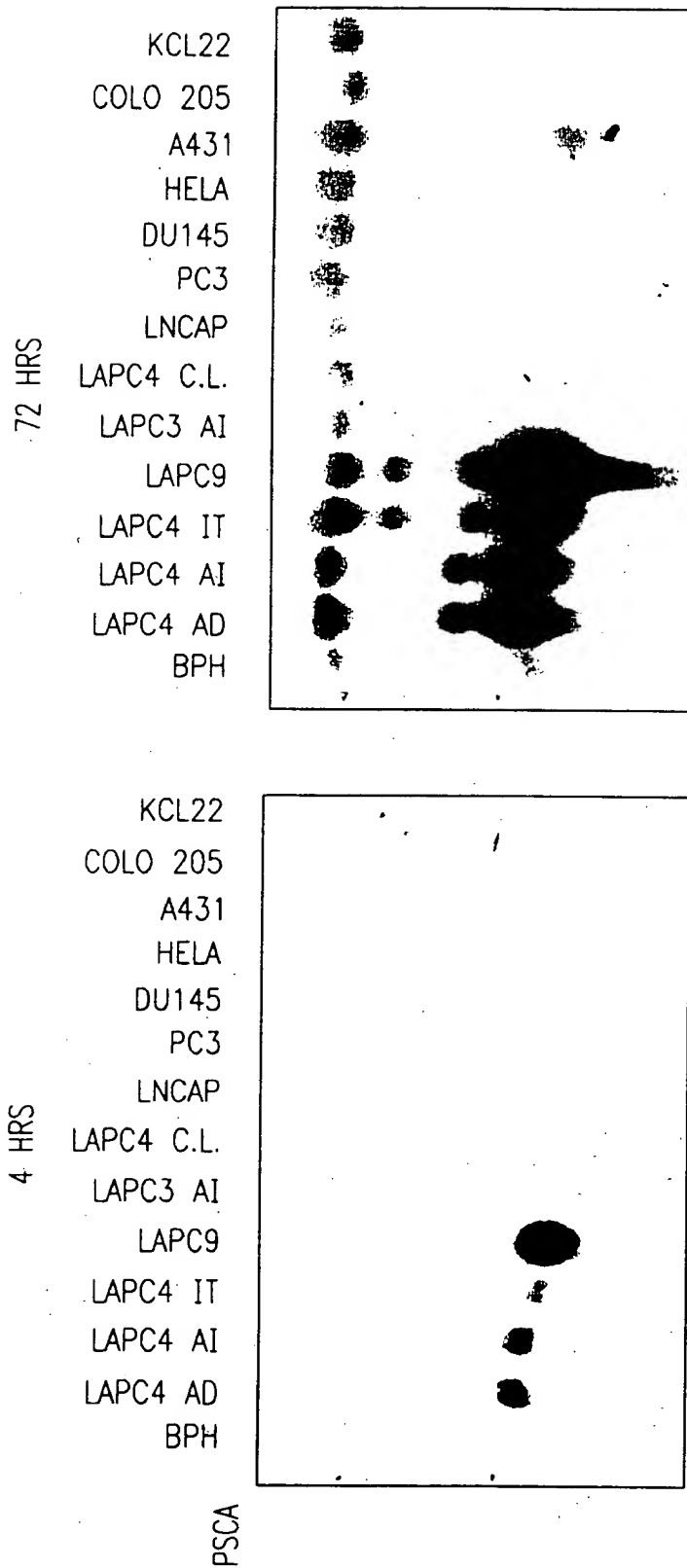
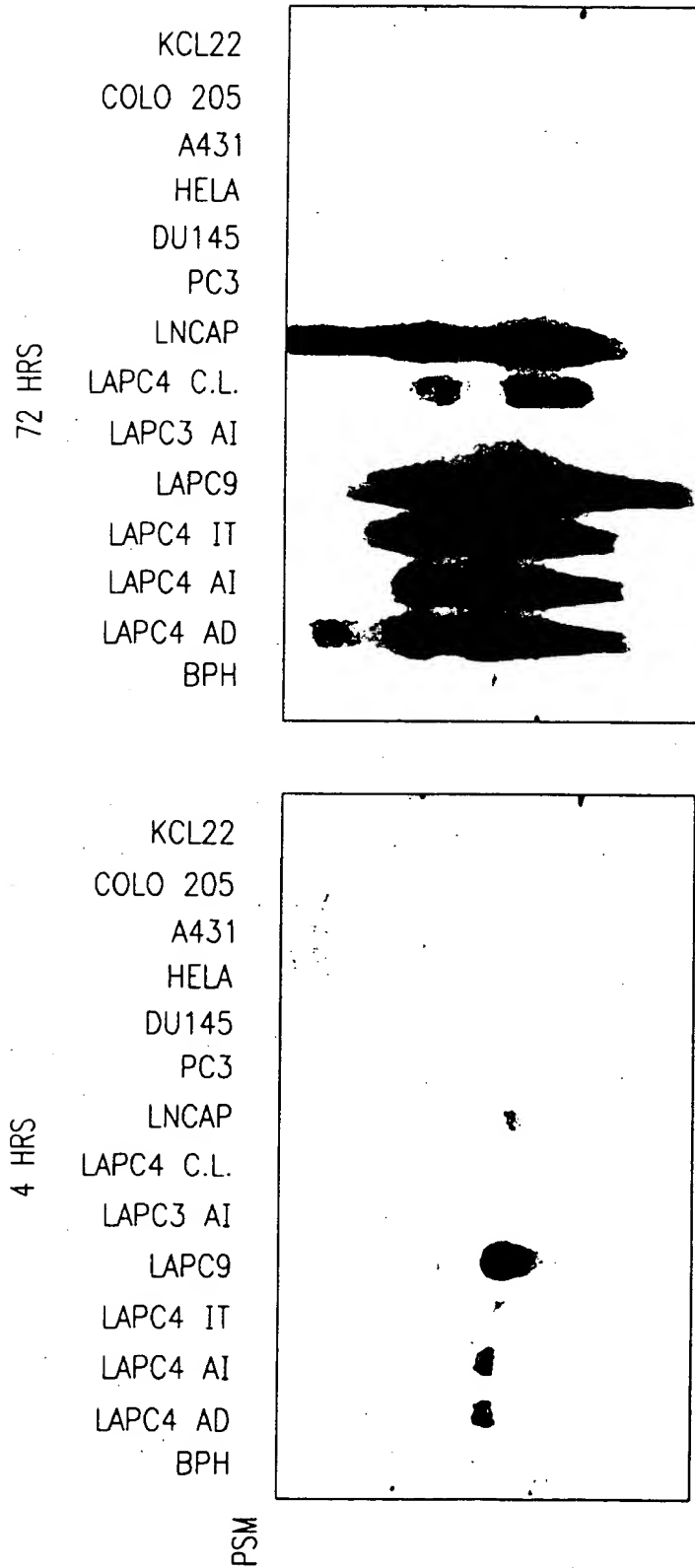
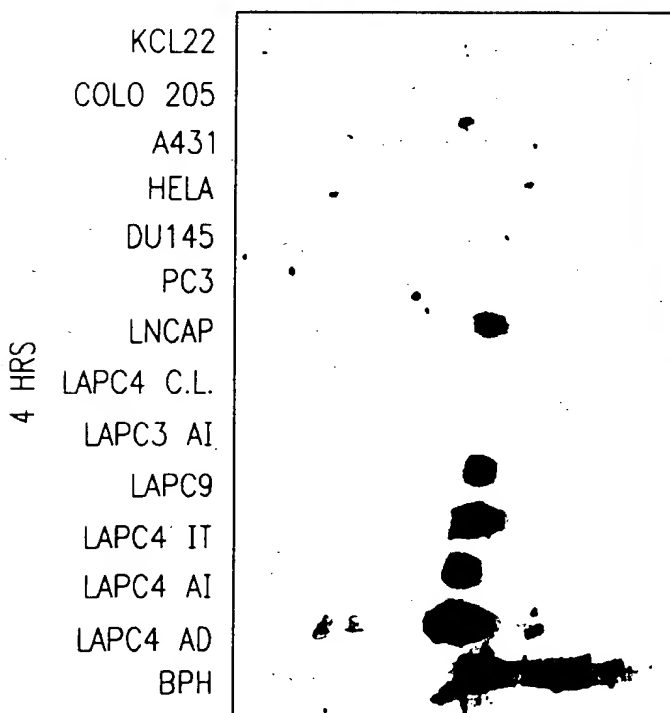
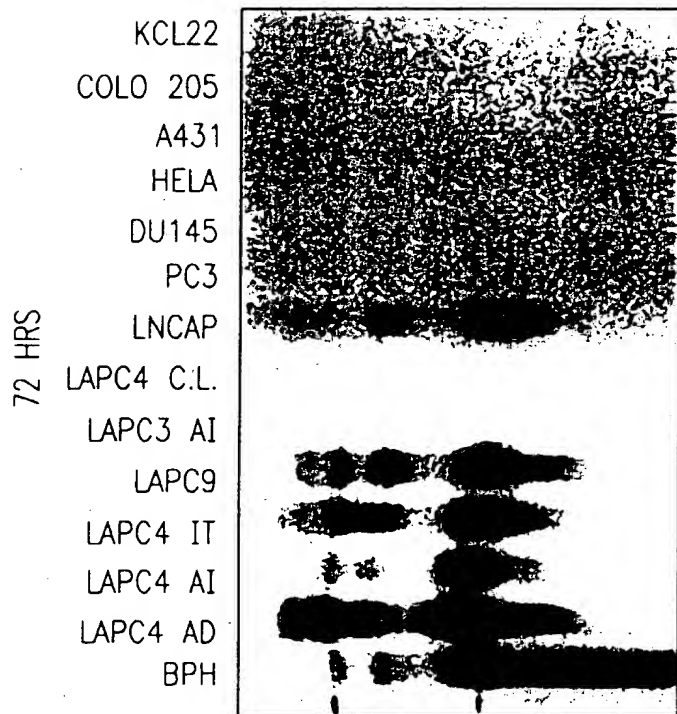
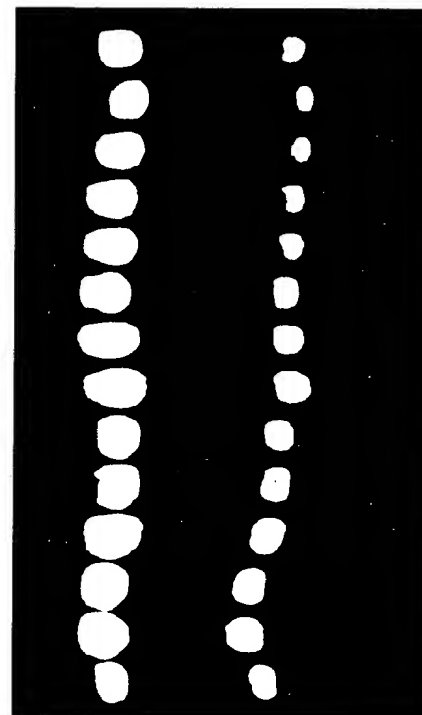


FIG. 10A





PSA



ETBR

FIG. 10C

FIG. 11A



FIG. 11B

0985453.072604
T05220"EST5360

0935453 075604
T05220" 23753860

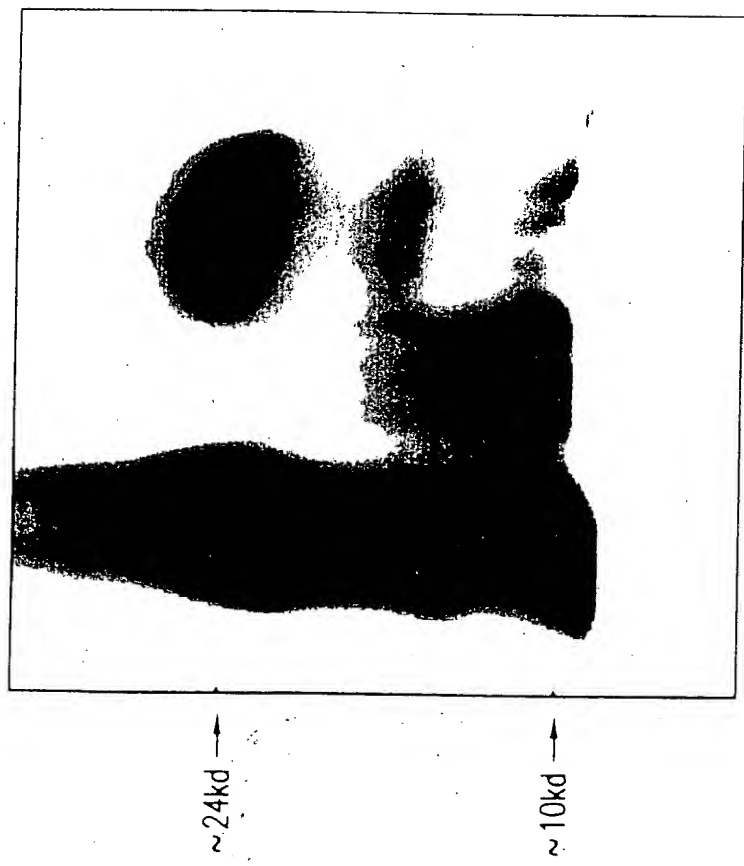


FIG. 11C

00554-0500 05453300

FIG. 12A

CONTROL
N GLYCOSIDASE F
O GLYCOSIDASE



CELL ASSOCIATED
SECRETED

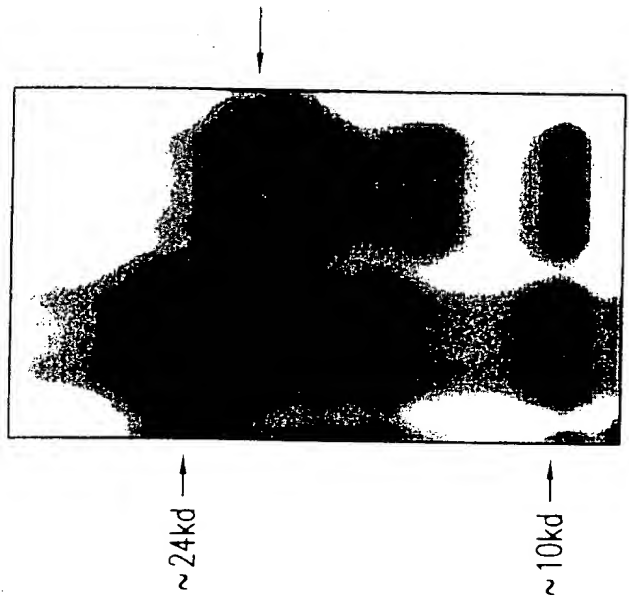


FIG. 12B

40320 634360

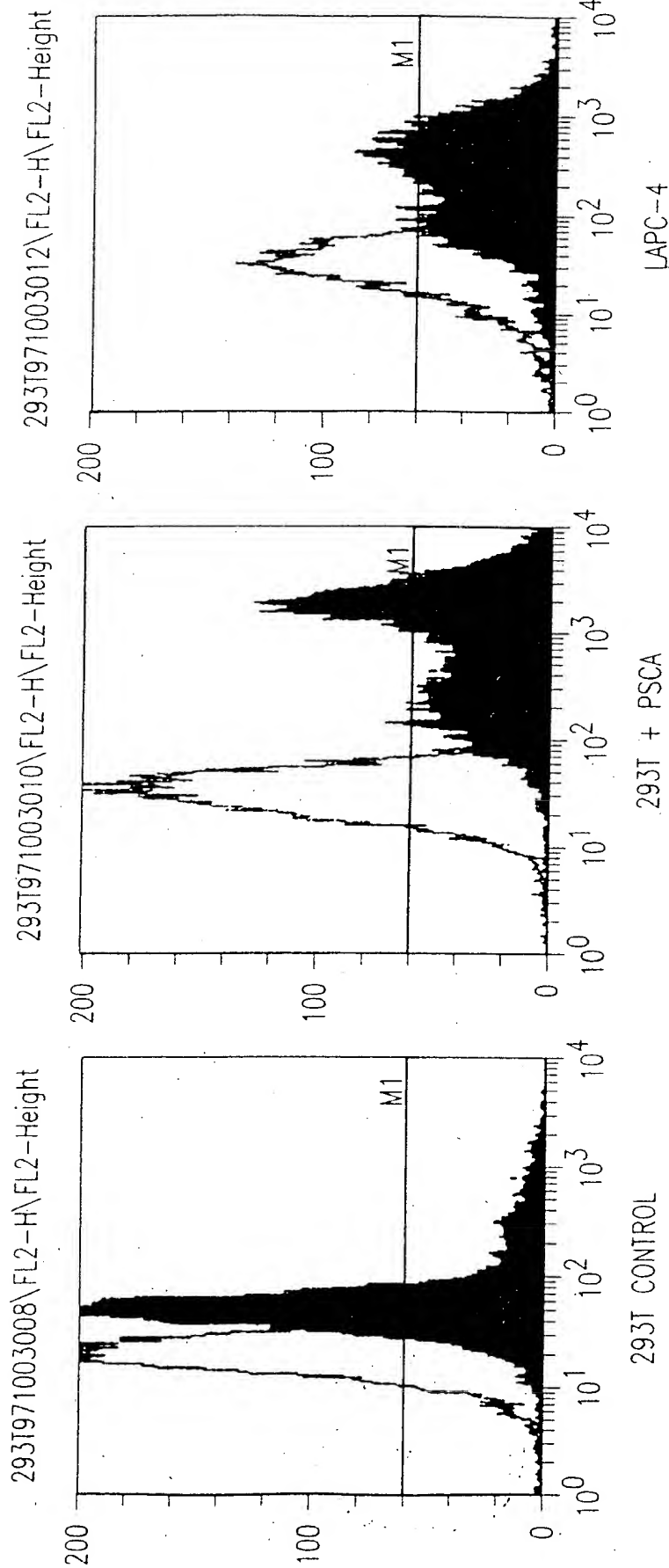


FIG. 12C

FIG. 13

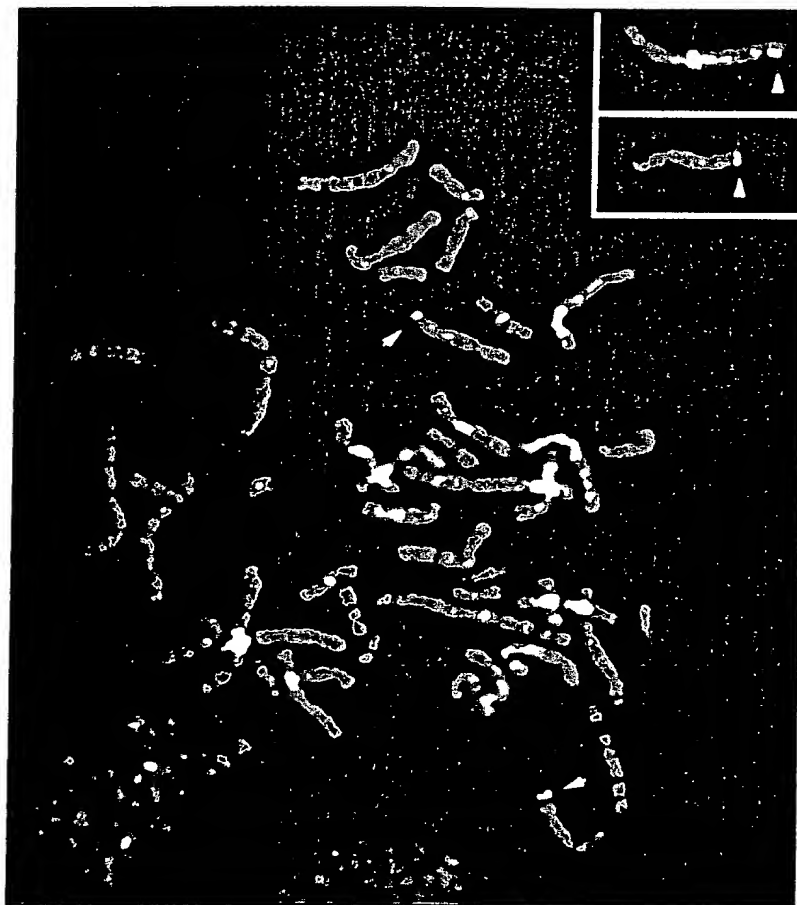


FIG. 14A

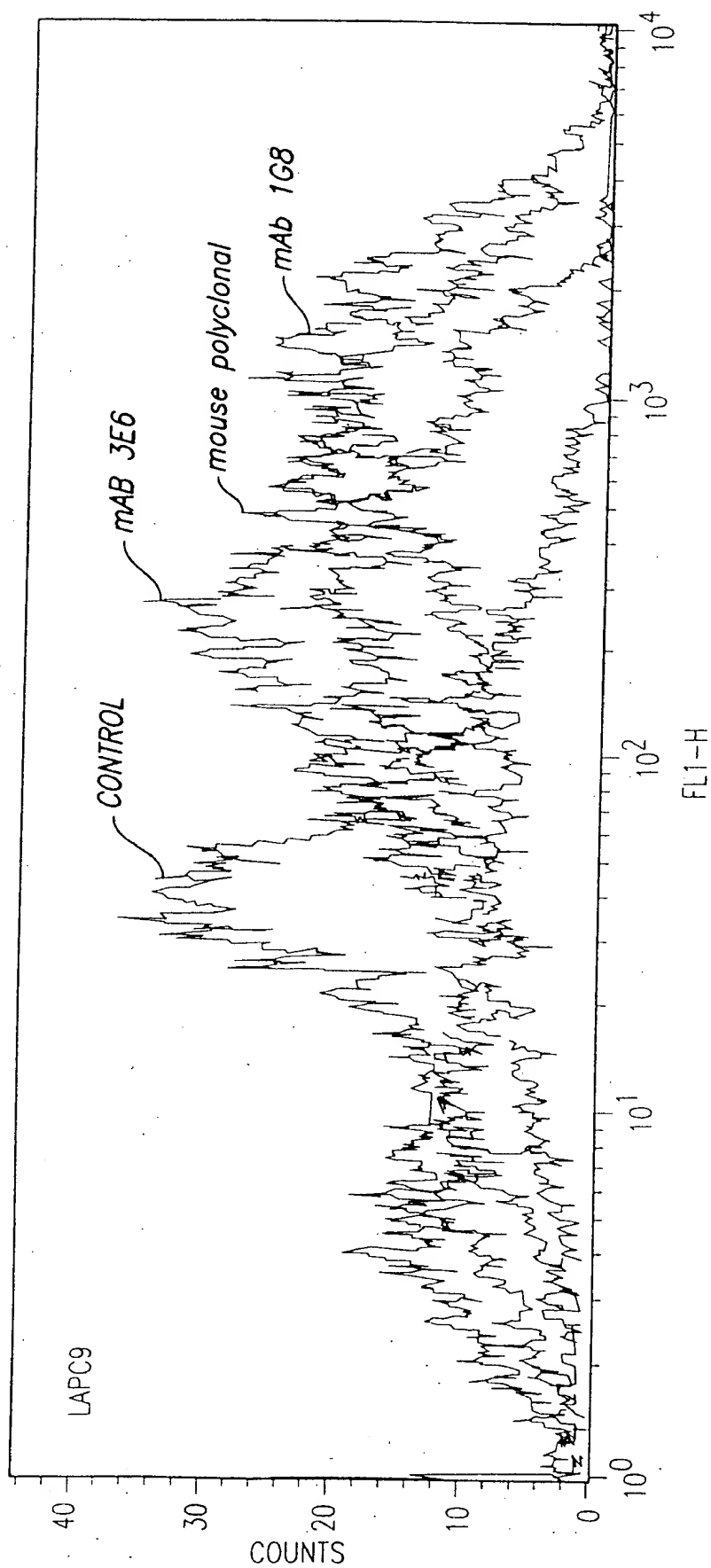


FIG. 14B

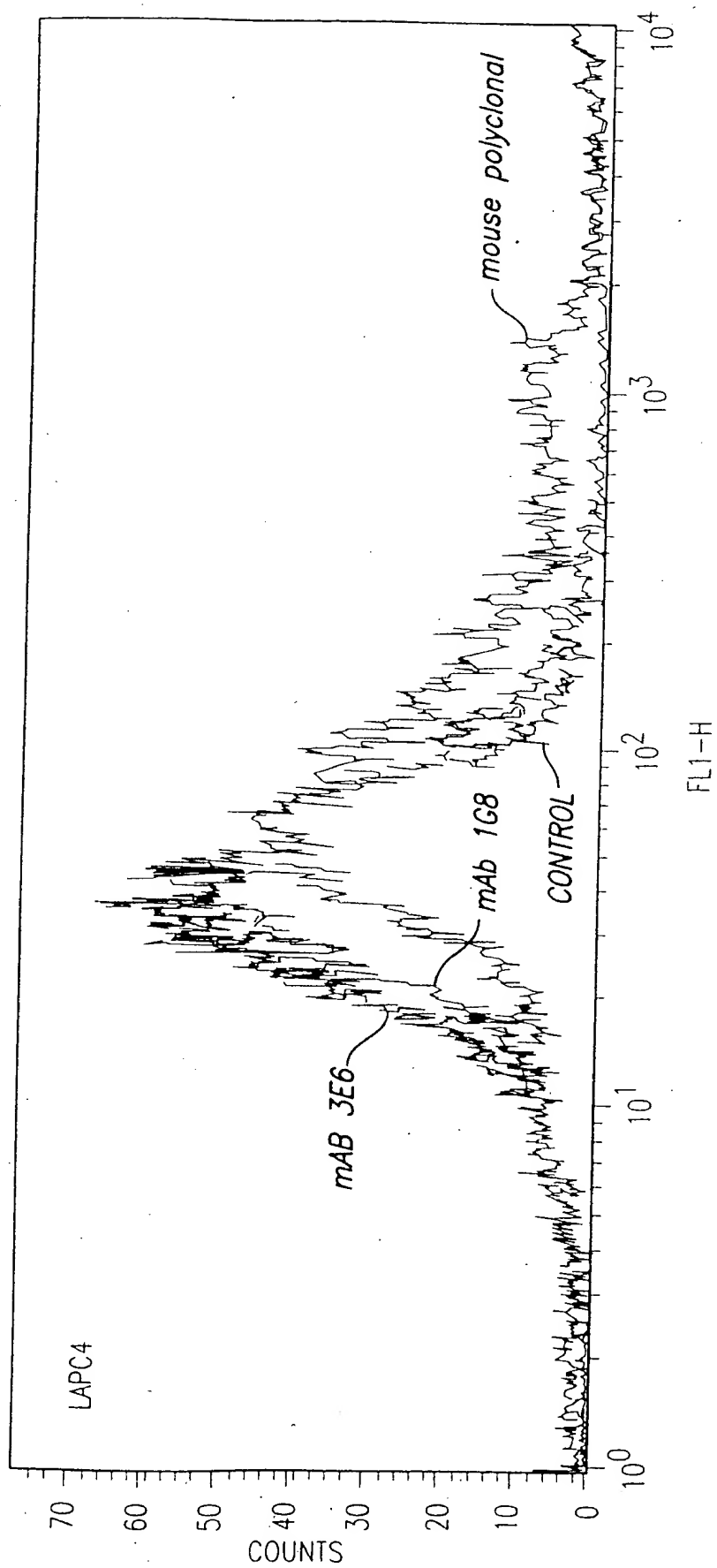


FIG. 14C

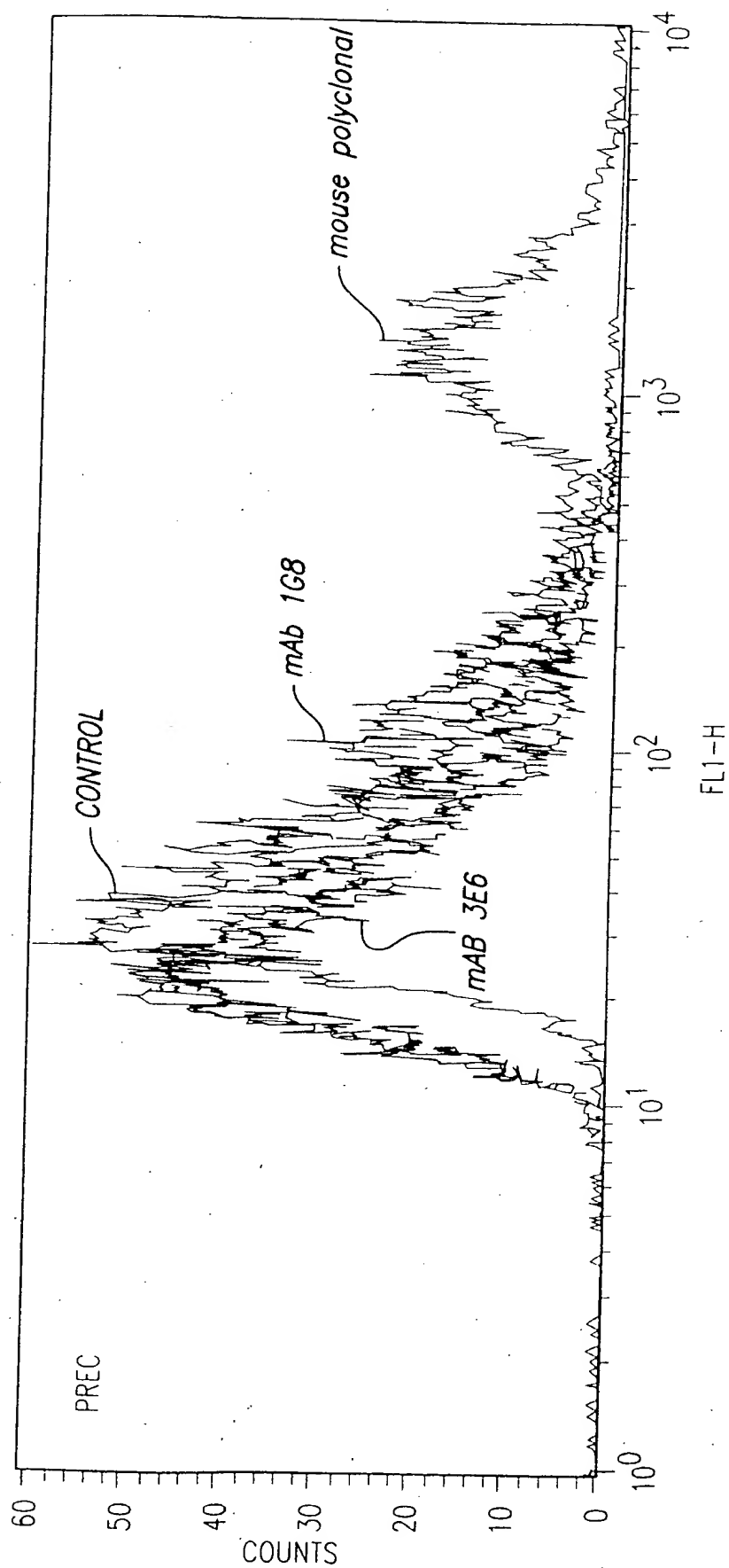


FIG. 15A

EPIIOPE MAP				
mAb	ISOTYPE	FL (18-98)	N (2-50)	M (46-109)
1G8	IgG1 k	2.039	0.007	0.628
2H9	IgG1 k	1.318	0.863	0.032
3C5	IgG2a k	2.893	1.965	0.016
3E6	IgG3 k	0.328	0.024	0.069
4A10	IgG2a k	2.039	1.315	0.000
2A2	IgG2a k	1.366	0.733	0.010
3G3	IgG2a k	2.805	1.731	0.004
				C (85-123)
				0.000
				0.021
				0.005
				0.370
				0.014
				0.003
				0.000

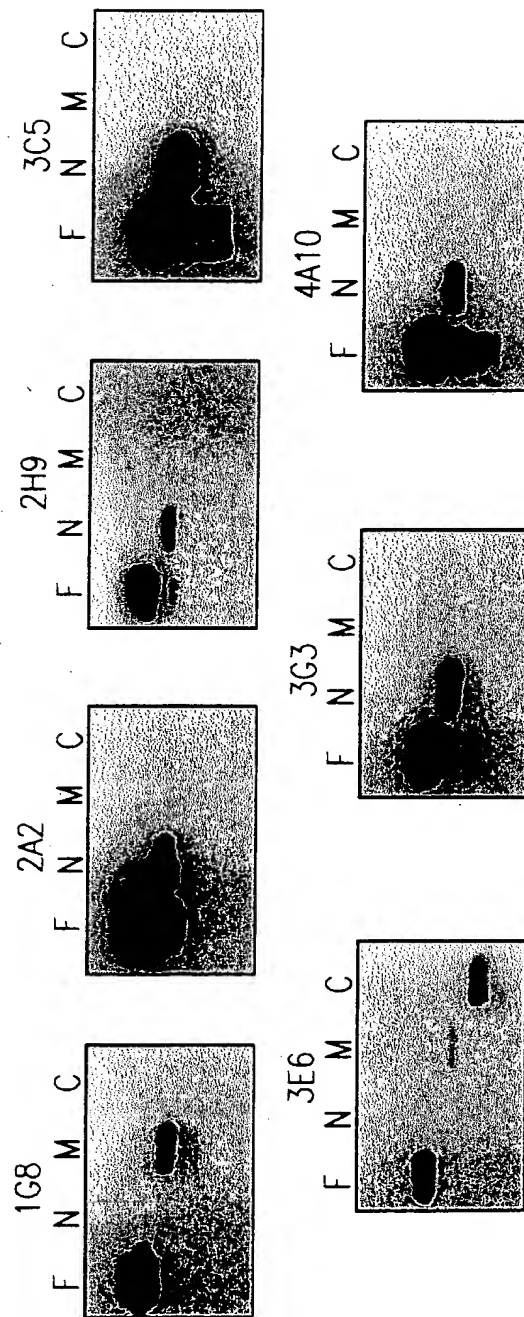


FIG. 15B

PROSTATE STEM CELL ANTIGEN (PSCA) IS A GPI-ANCHORED PROTEIN

	hSCA-2	hPSCA	mPSCA
1	M K I F L P V L L A A L L G V E R A S S		
1	M K A V L L A L L M A G L A L Q P G T A		
1	M K T V L L F L L L A T Y L A L H P C A A		
21	L M C F S C L N Q K S N L Y C L K P T I		
21	L L C Y S C K A Q V S N E D C L Q V E N*		
21	L L Q C Y S C T A Q M N N R D C L N V Q N*		
41	C S D Q D N Y C V T V S A S A G I G N L		
41	C T Q L G E Q C W T A R T R A V G L L I		
41	C S L D Q H S C F I S R L R A I G L V I		
61	V T F G H S L S K T C S P A C P I P E G		
61	V - - - - - I S K G C S L N C G V D D S Q		
61	V - - - - - I S K G C S S Q C E D D S E		
81	V N V G V A S M G T S C C Q Q S F L C N* F		
76	D Y Y V C K K - N T T G G D T D L C N* A		
76	N Y Y L C K K - N T T C C Y S D L C N* V		
101	S A A D G G L R A S V T T L G A G L L L		
95	S C A H A L Q P A A A I L A L P A L G		
95	N G A H T L K P P T T L G L L T V L C S		
121	S L L P A L L R F G P		
115	L L L W C P G Q L - -		
115	L L L W C S S R L - -		

FIG. 16A

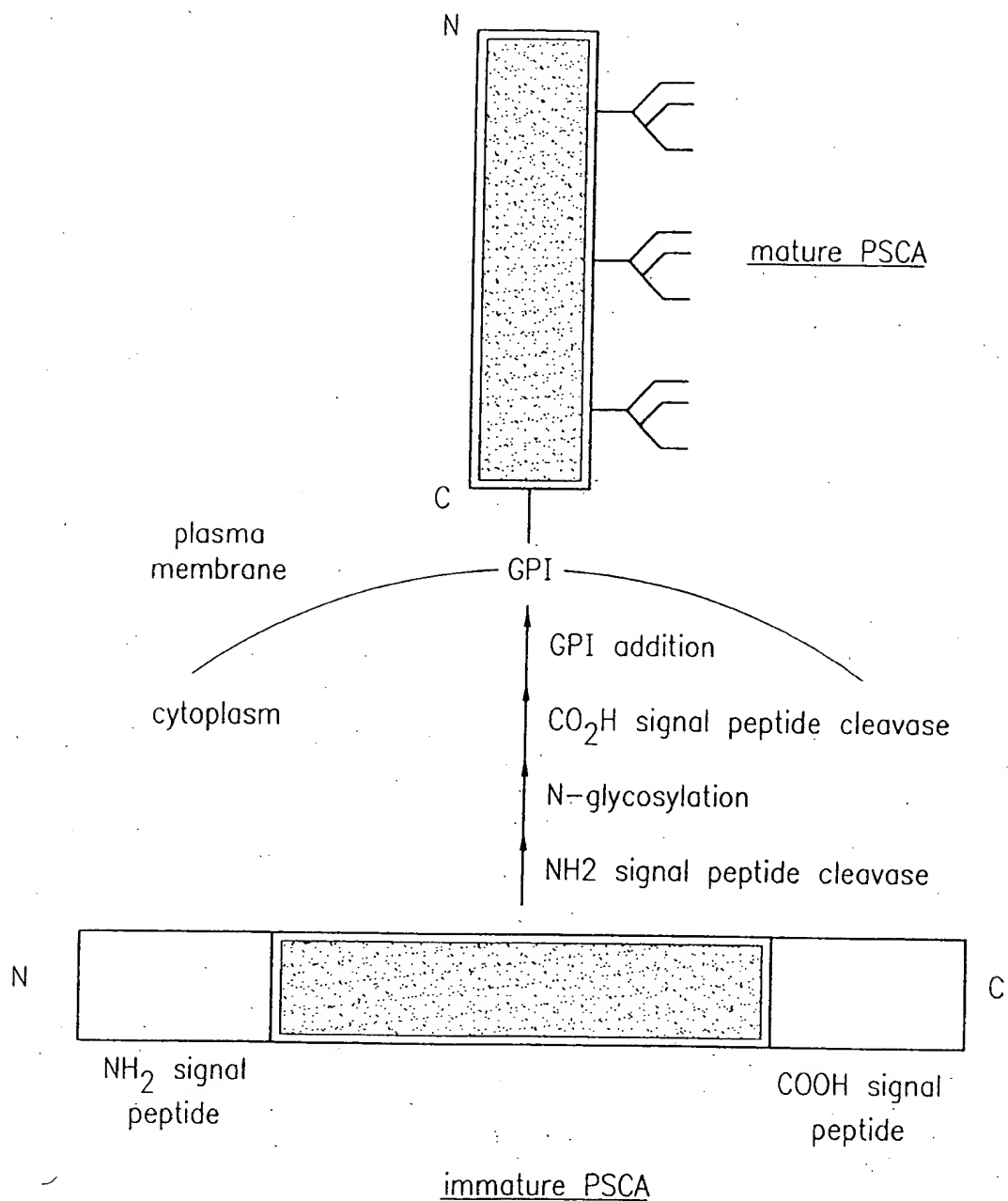
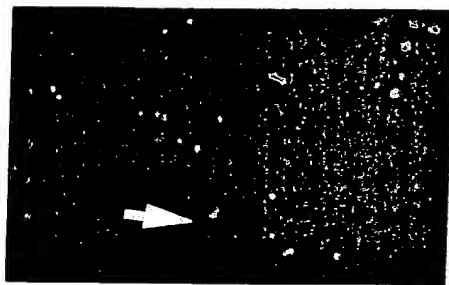


FIG. 16B

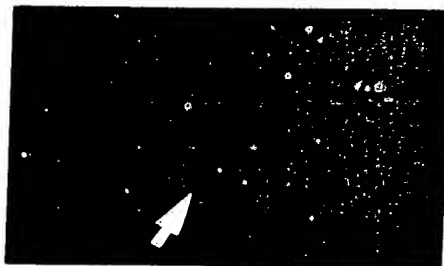
FIG. 17

GAIN CHROMOSOME 8

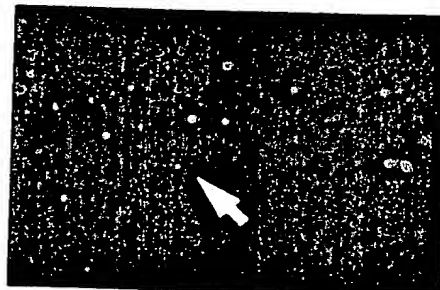


#34 c-myc

#34 PSCA



AMPLIFICATION



#75 c-myc

#75 PSCA

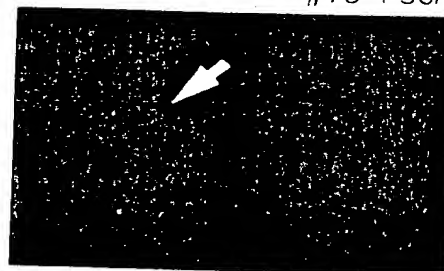


FIG. 18

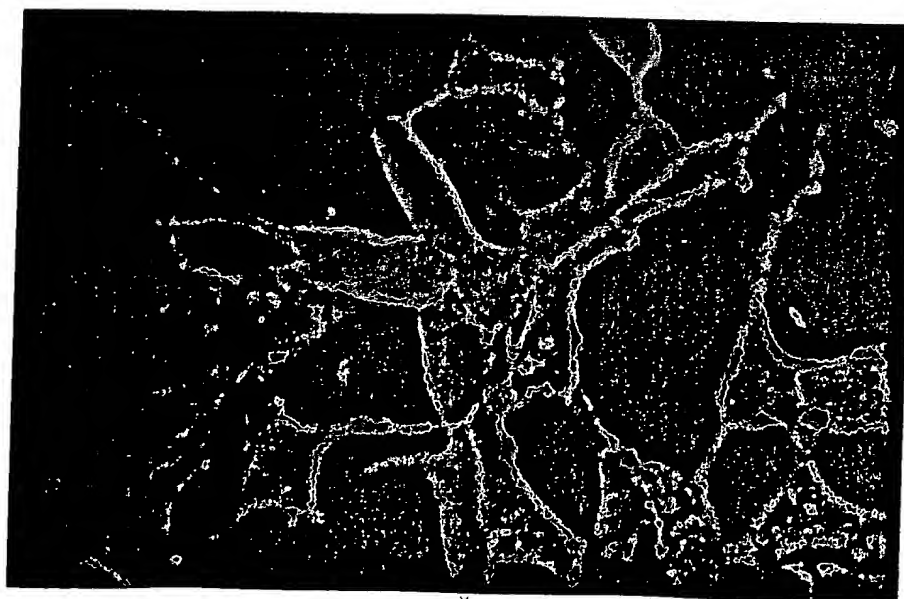
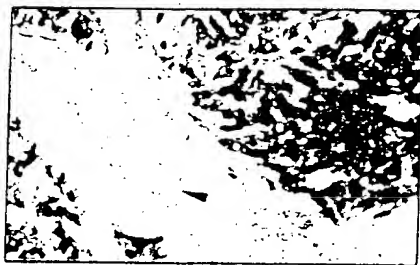


FIG. 20



FIG. 21



patient 1:mAb 1G8



patient 2:mAb 1G8

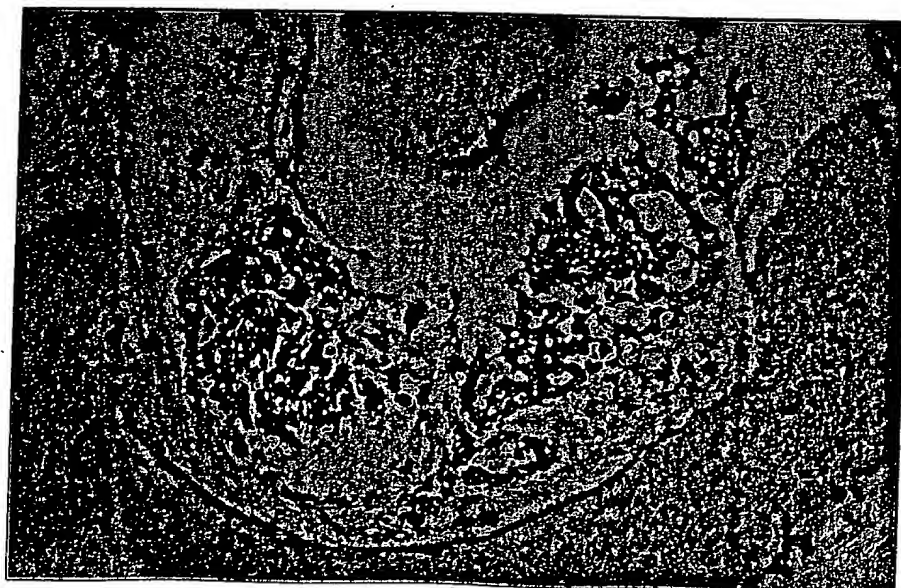


patient 3:mAb 1G8



patient 4:mAb 3E6

FIG. 22



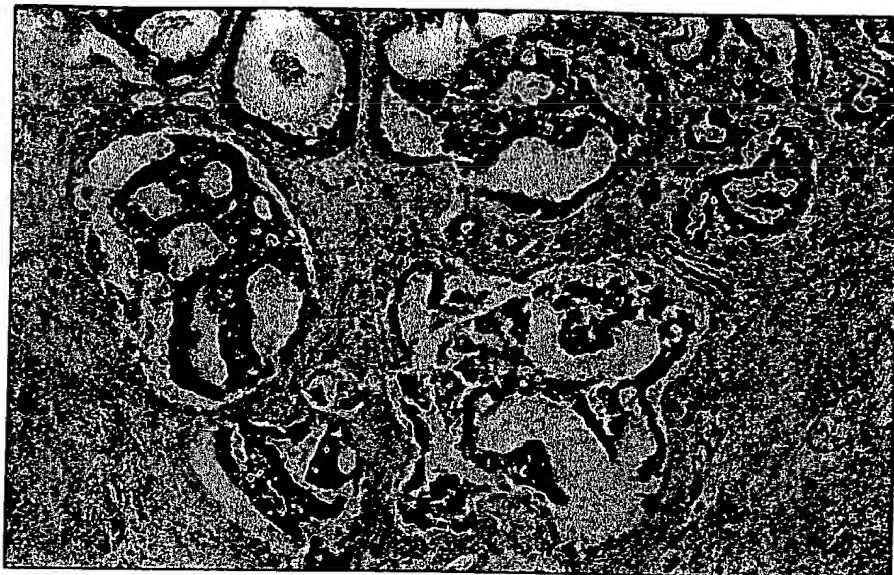


FIG. 23

FIG. 24



1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424
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LAPC9

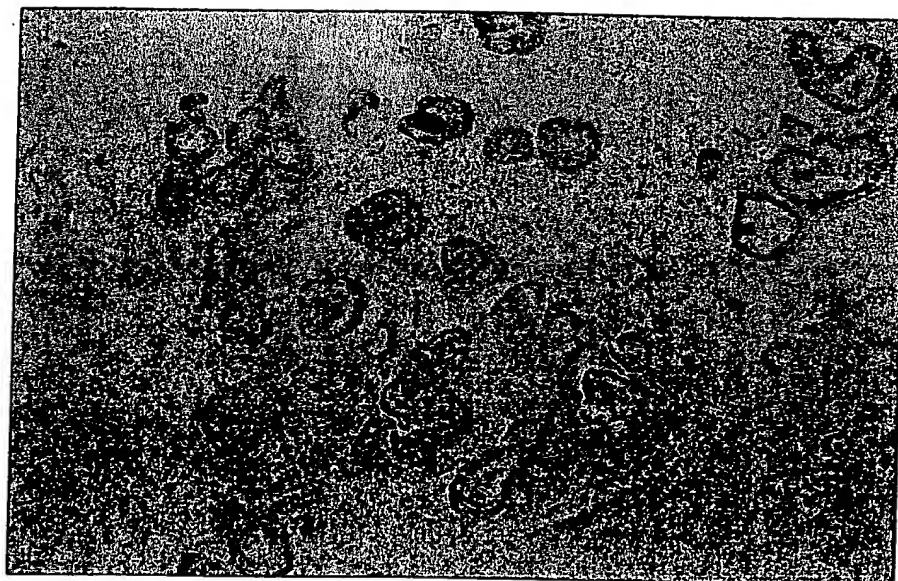
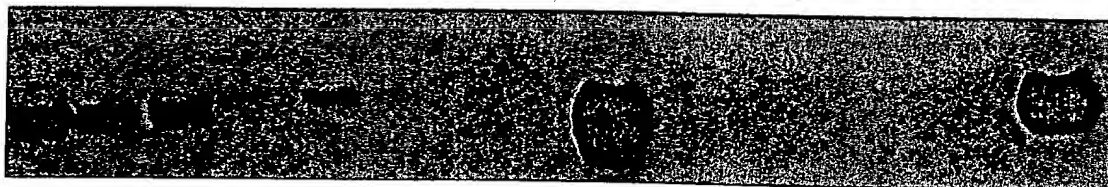


FIG. 26

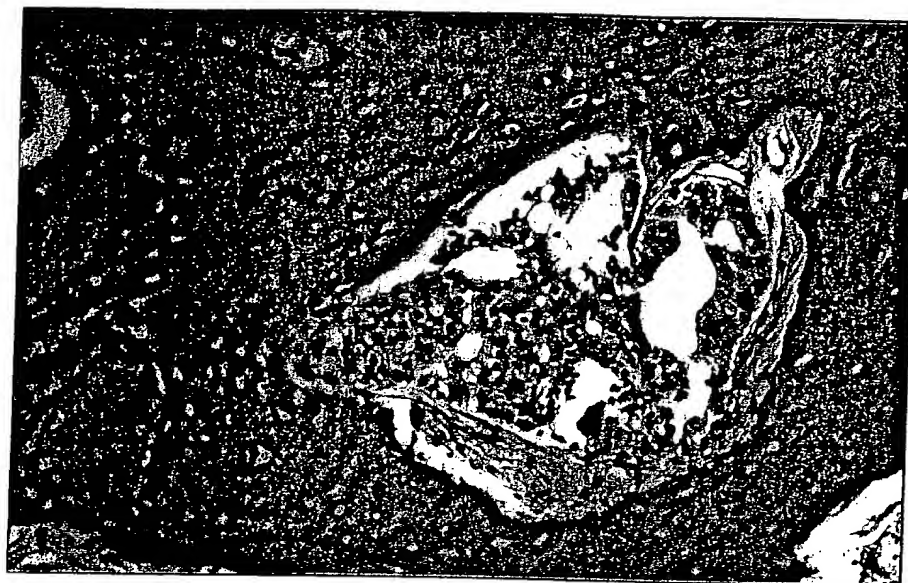
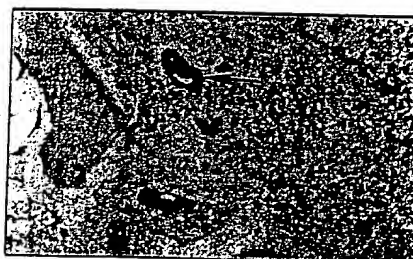
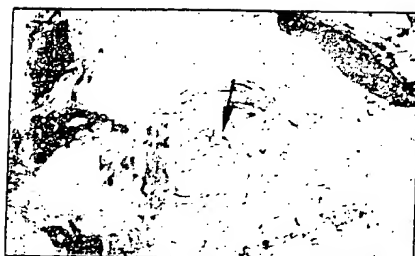


FIG. 27



Patient 5: H and E
and mAb 1G8



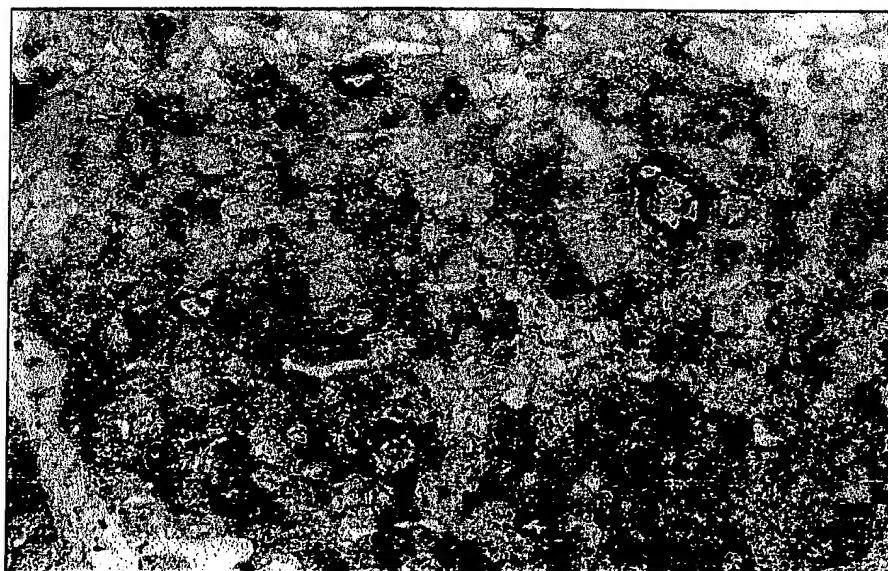
Patient 4: H and E
and mAb 3E6

FIG. 28



FIG. 29

FIG. 30



0005543 073504
103220 6155360

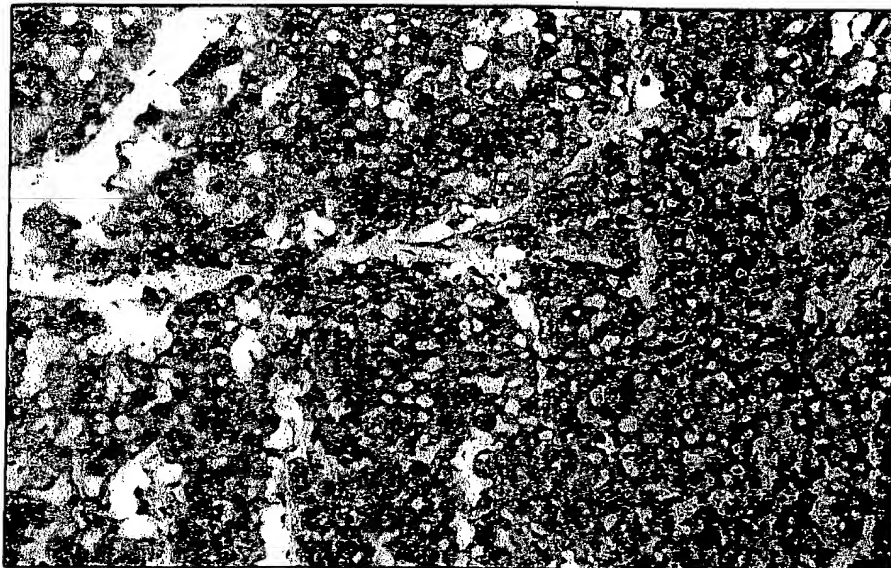


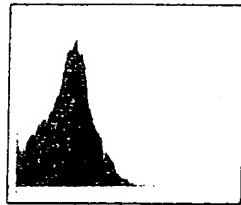
FIG. 31

FIG. 32

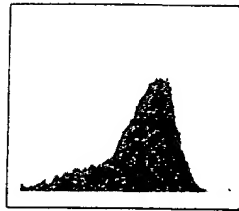


FIG. 33

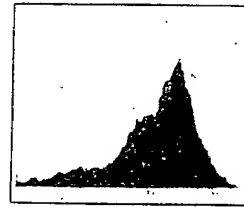
SECONDARY ANTIBODY



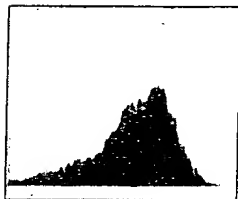
1G8



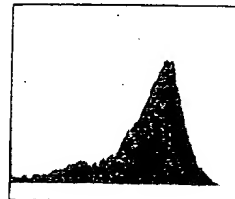
2H9



4A10



3C5



3E6

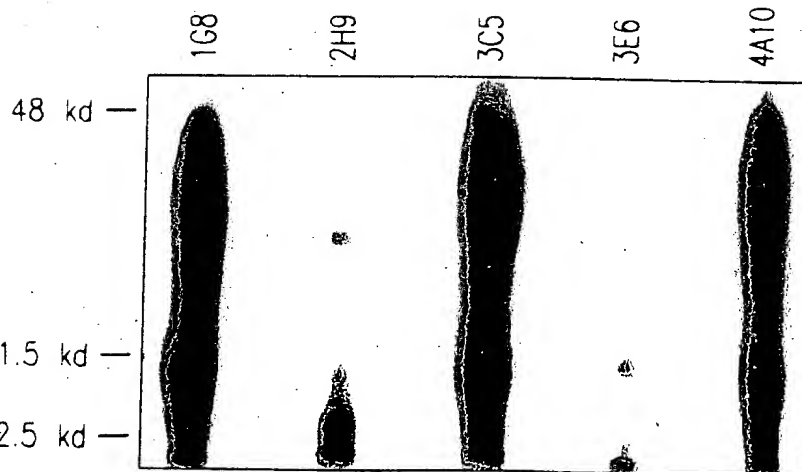
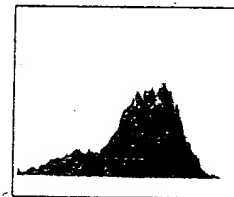


FIG. 34

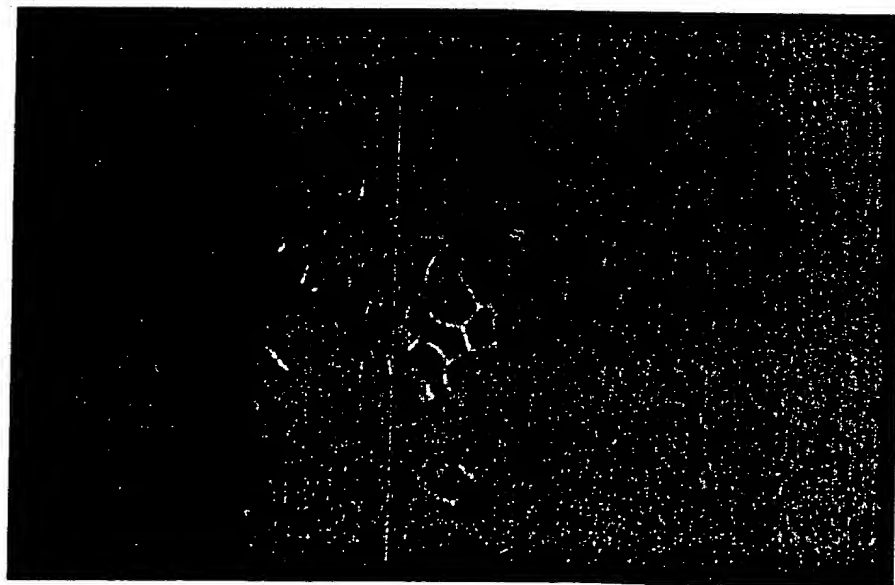
[illegible]

FIG. 36

FIG. 37

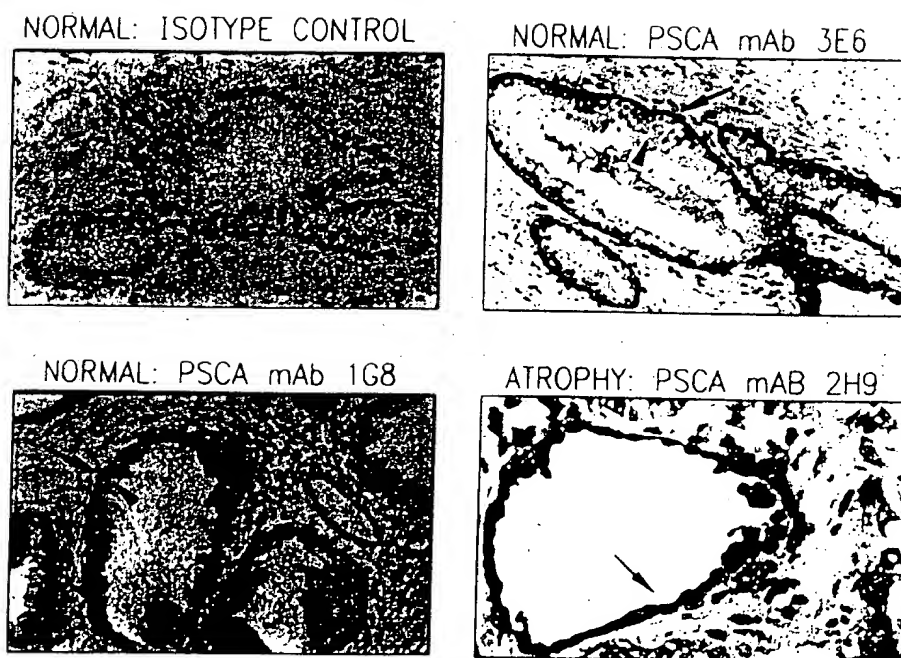


FIG. 38

FIG. 40A

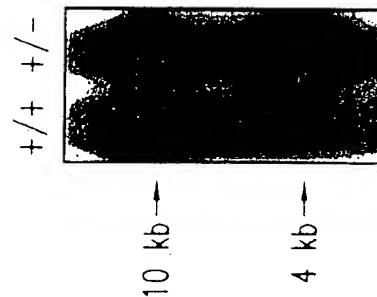
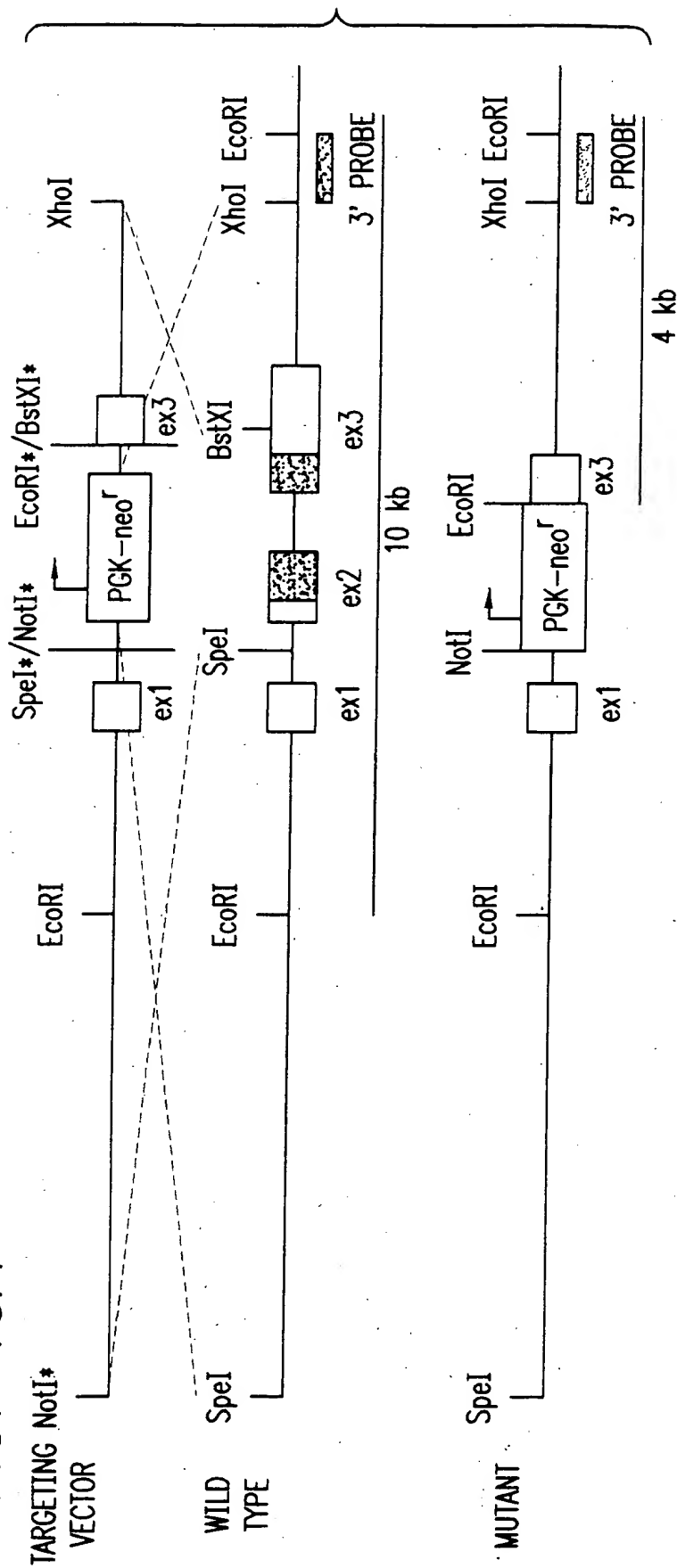
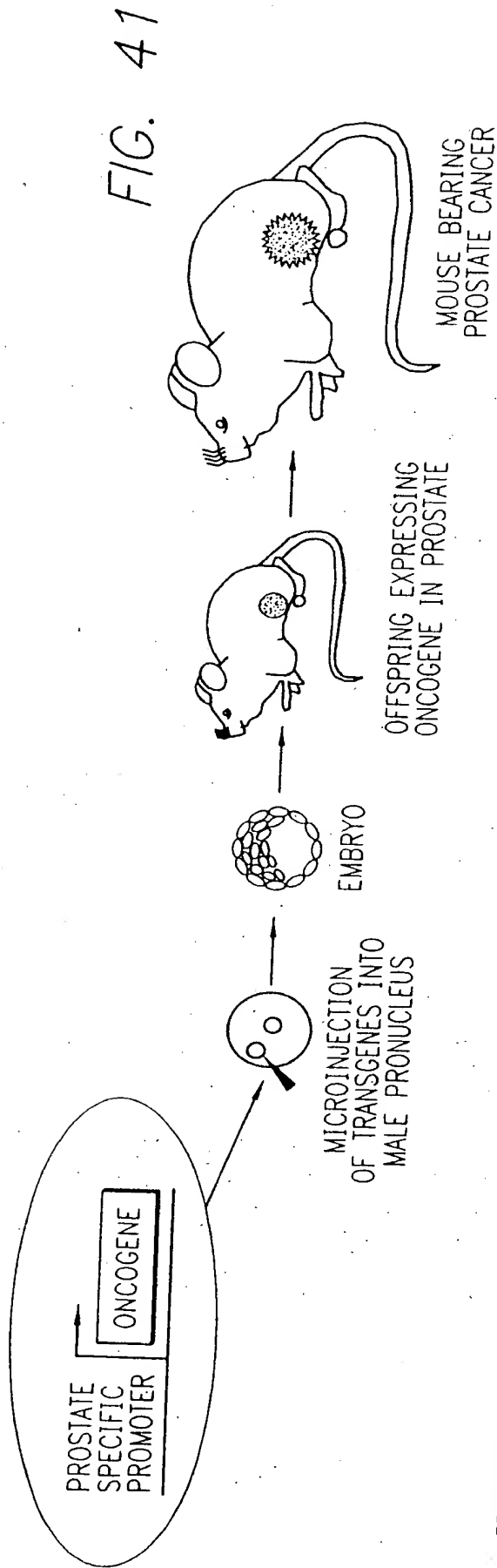


FIG. 40B



TRANSGENE	TARGET TISSUES	CHARACTERISTICS
C3(1) (~3 kb)/ SV40 LARGE+SMALL, T MAROULAKOU et al. 1994 PNAS	PROSTATE (SECRETORY CELLS) URETHRAL, MAMMARY AND SWEAT GLAND	LOW-GRADE PIN 8-12 WKS HIGH-GRADE PIN 8-12 WKS INVASIVE CARCINOMA 28 WKS NO METASTASES
PROBASIN (~426 bp)/ SV40 LARGE+SMALL, T GREENBERG et al. 1995 PNAS	PROSTATE (SECRETORY CELLS)	LOW-GRADE PIN 5-8 WKS HIGH-GRADE PIN 8-12 WKS INVASIVE CARCINOMA 12 WKS METASTASES IN LYMPH NODE, LUNG, LIVER AND BONE
CRYPTIDIN2 (~6.5 kb)/ SV40 LARGE+SMALL, T GARABEDIAN et al. 1998 PNAS	PROSTATE (NEUROENDOCRINE CELLS) SMALL INTESTINE	LOW-GRADE PIN 8-12 WKS HIGH-GRADE PIN 8-12 WKS INVASIVE CARCINOMA 16 WKS METASTASES IN LYMPH NODE, LUNG, LIVER, AND BONE

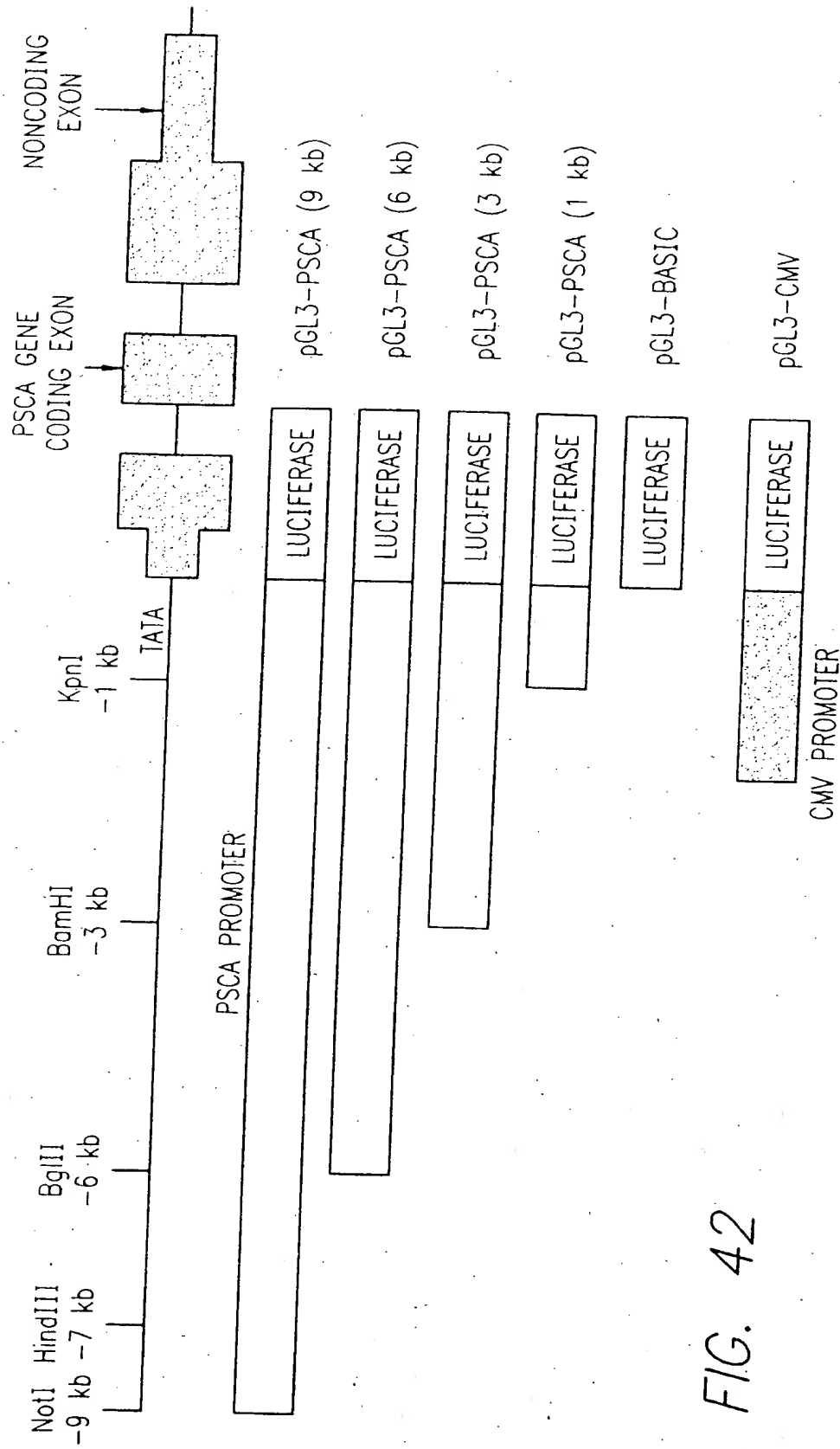


FIG. 42

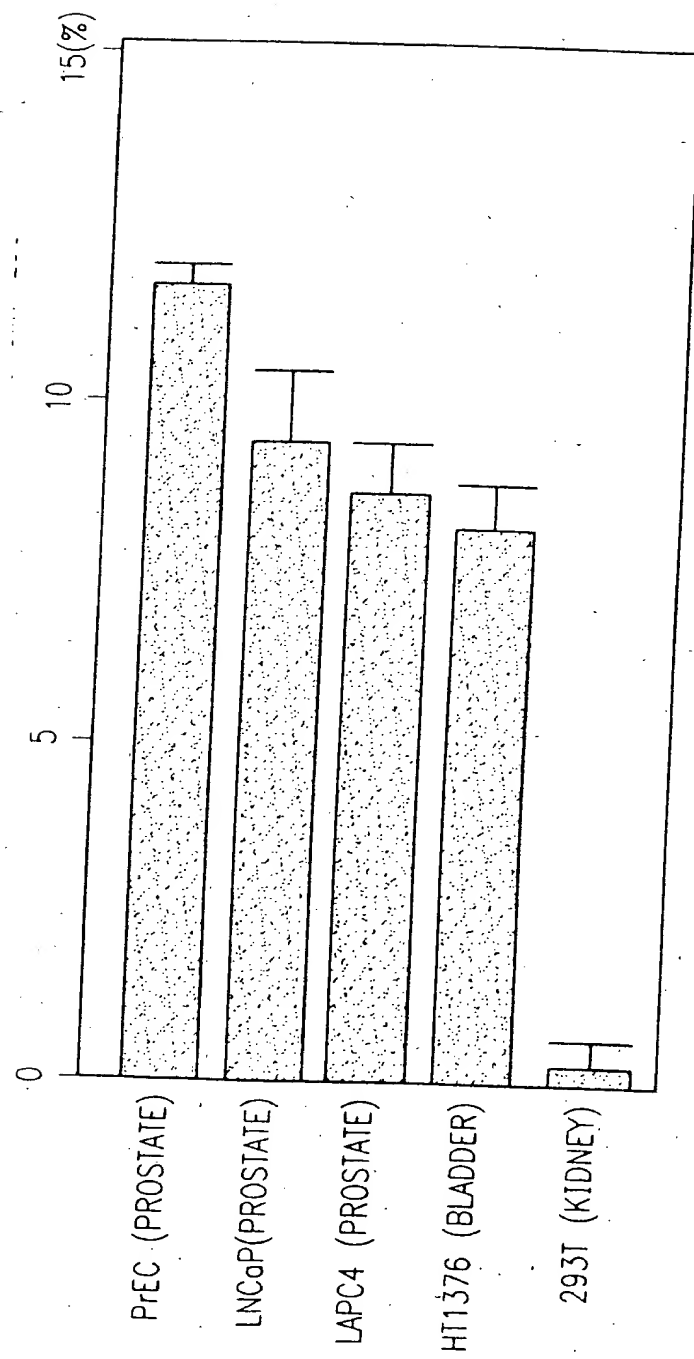


FIG. 43

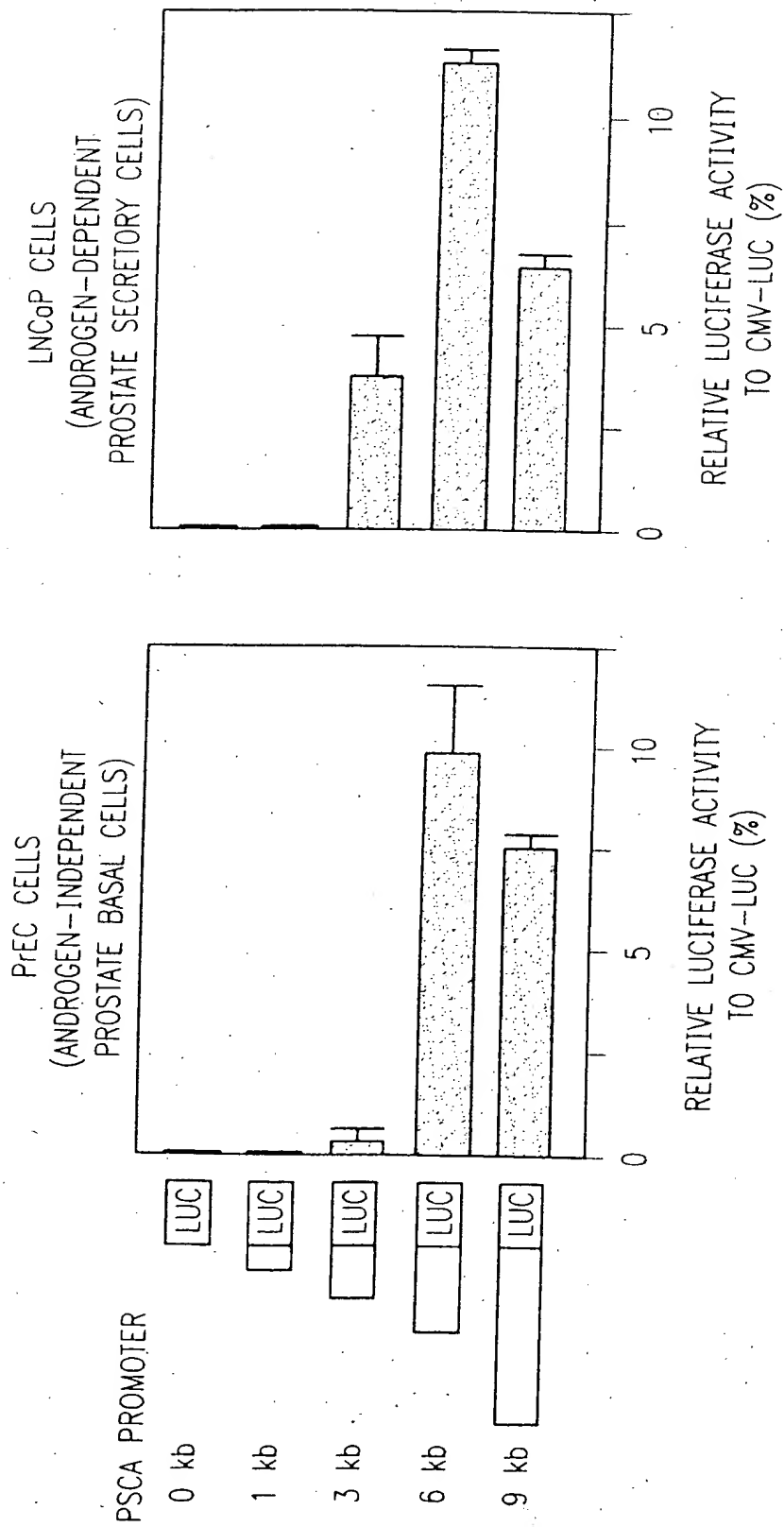


FIG. 44

FIG. 45

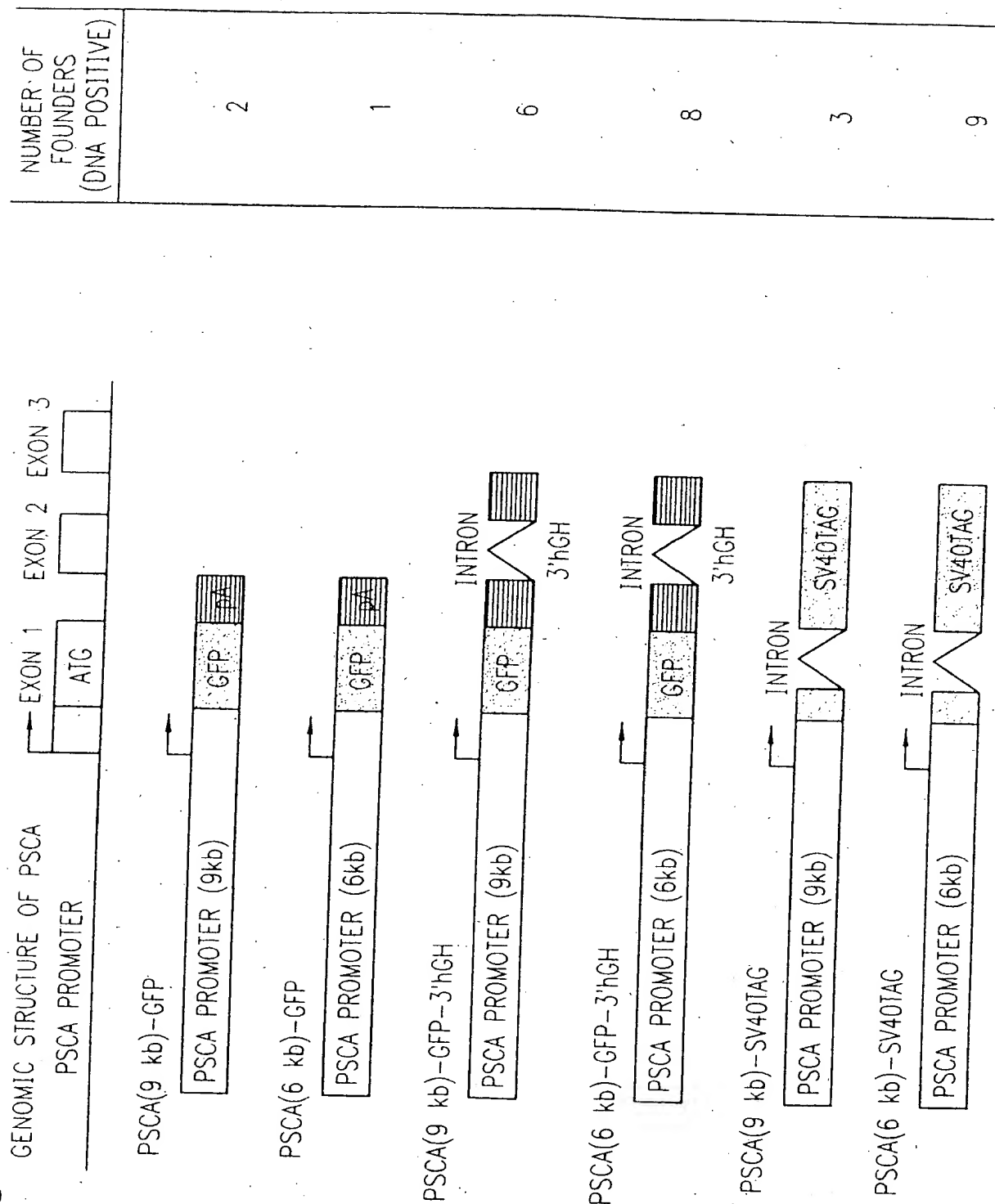
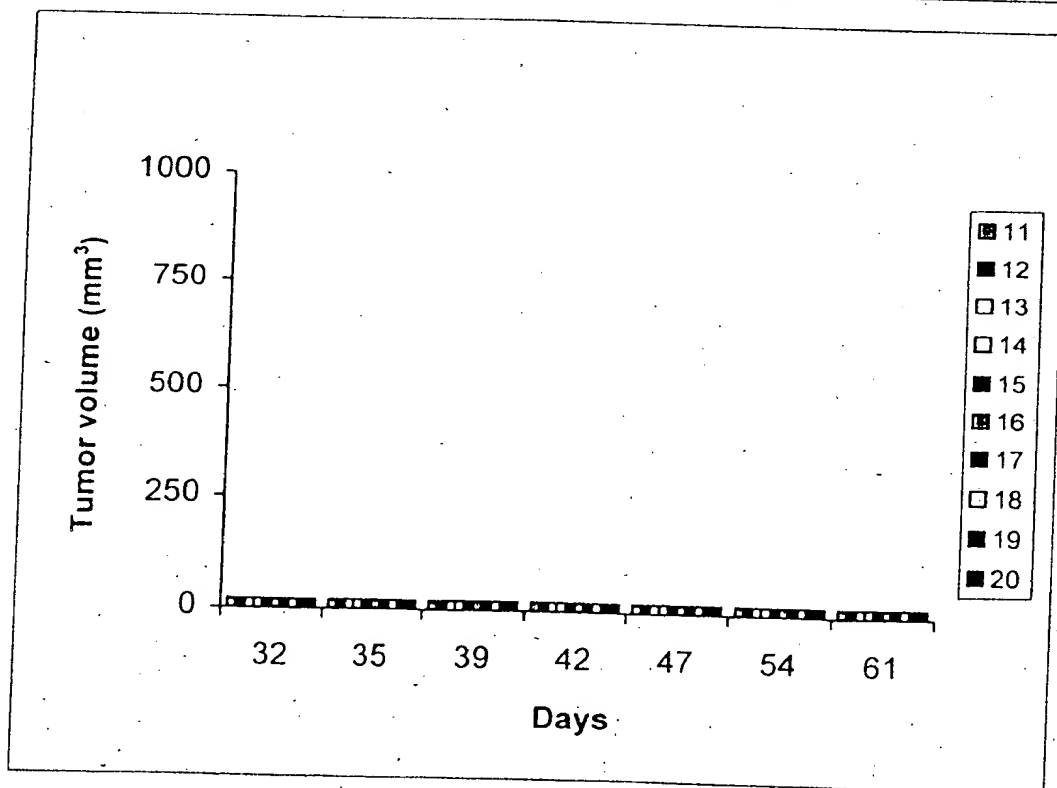
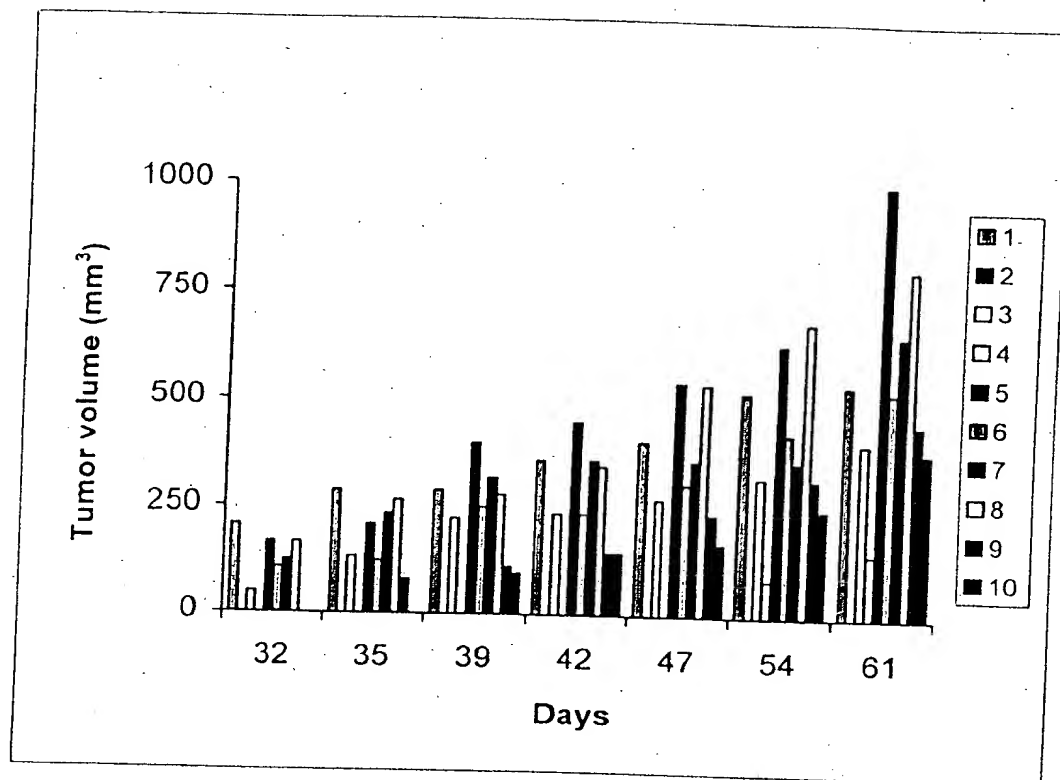


Figure 1 shows two immunoblots. The left blot is probed with anti-hPSCA antibody, showing a strong band in the PLACENTA lane and a very strong band in the PROSTATE lane. The right blot is probed with anti-mPSCA antibody, showing bands in the SKIN, LIVER, LUNG, EYE, BRAIN, HEART, SKELETAL MUSCLE, BONE MARROW, THYMUS, SPLEEN, SALIVARY GLAND, COLON, SMALL INTESTINE, DUODENUM, PYLORIC STOMACH, BODY OF STOMACH, CARDIAC STOMACH, ESOPHAGUS, KIDNEY, TESTIS, URETHRA, SEMINAL VESICLE, BLADDER, VENTRAL PROSTATE, DORSO/LAT. PROSTATE, and ANT. PROSTATE lanes. The bottom of the figure is labeled with 'hPSCA' and 'mPSCA' with arrows pointing to their respective blots.

FIG. 47

FIG. 48



20220123155050

FIG. 49

A

Epitope recognized (OD 450 nm)

mAb	Isotype	F (18-98)	N (2-50)	M (46-109)	C (85-123)
1G8	IgG1 k	1.485	0.004	1.273	0.003
2A2	IgG2a k	0.973	0.631	0.023	0.010
2H9	IgG1 k	1.069	1.026	0.002	0.001
3C5	IgG2a k	1.916	1.709	0.006	0.002
3E6	IgG3 k	1.609	0.036	1.133	2.118
3G3	IgG2a k	2.805	1.731	0.004	0.000
4A10	IgG2a k	1.053	0.493	0.000	0.001

B

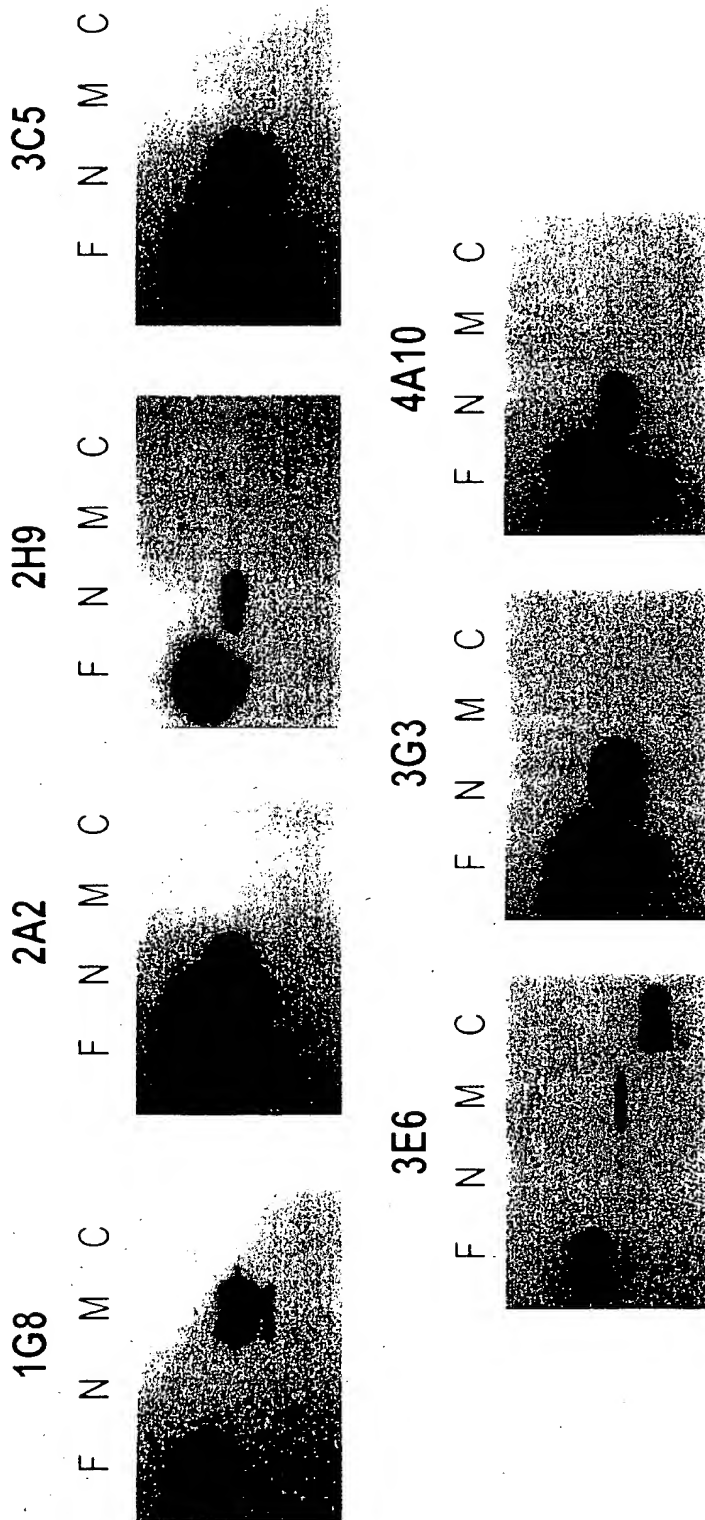
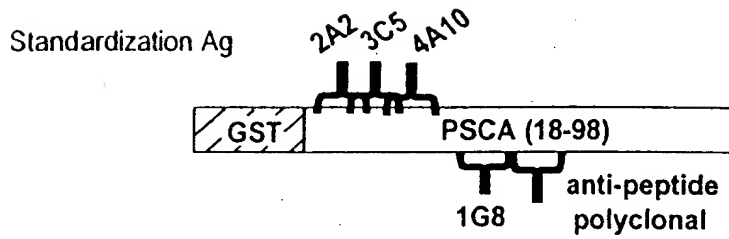
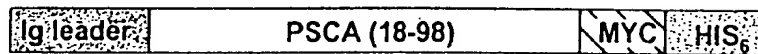


FIG. 50

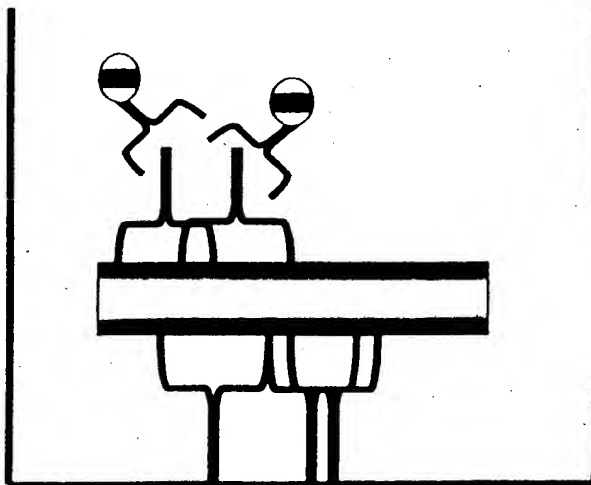
A



Engineered mammalian secreted form



B



Anti-IgG2a HRP

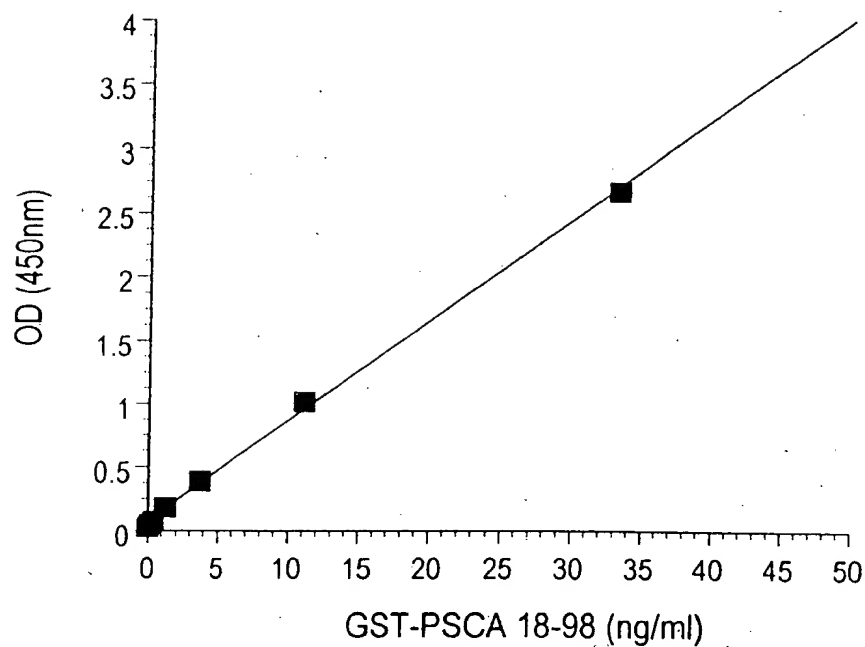
Anti-PSCA mAbs 3C5+4A10+2A2 (IgG2a)

PSCA

Affinity purified anti-peptide polyclonal
+ mAb 1G8 (IgG1)

FIG. 51

A



B

Sample	OD+range (n=2)	ng/ml
vector	0.005+0.001	ND
vector+hu serum	0.004+0.001	ND
secPSCA	2.695+0.031	32.92
secPSCA+hu serum	2.187+0.029	26.55

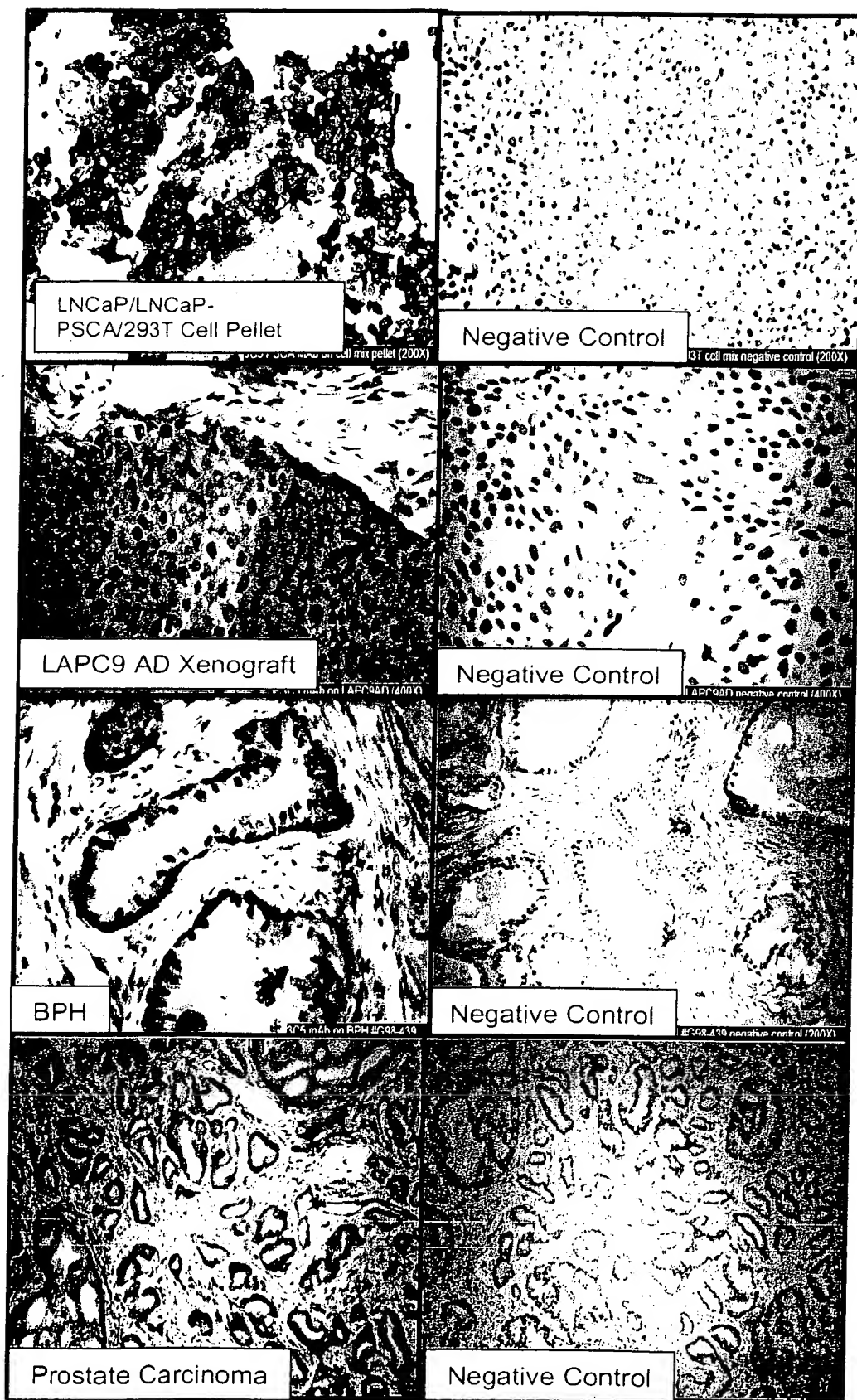
[illegible]

FIG. 53

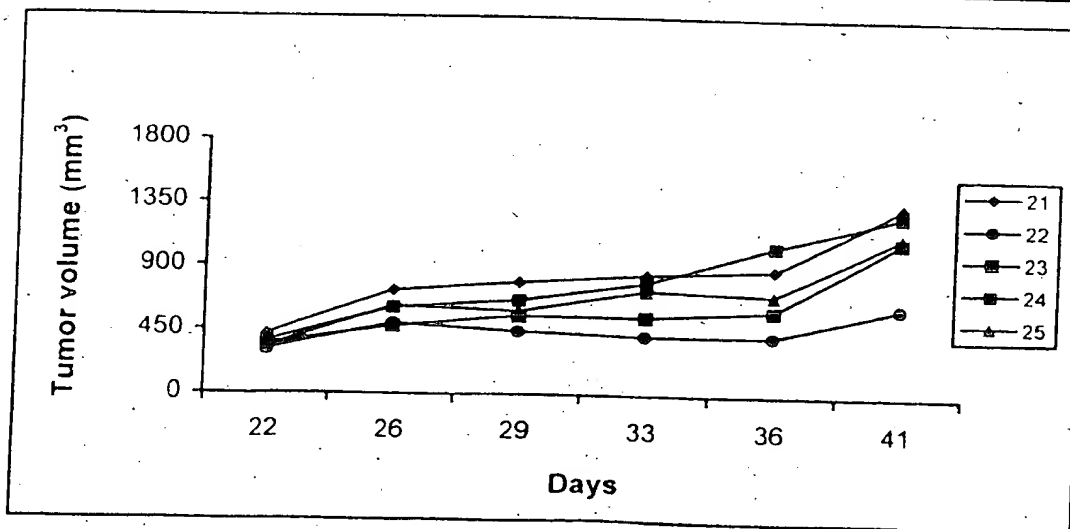
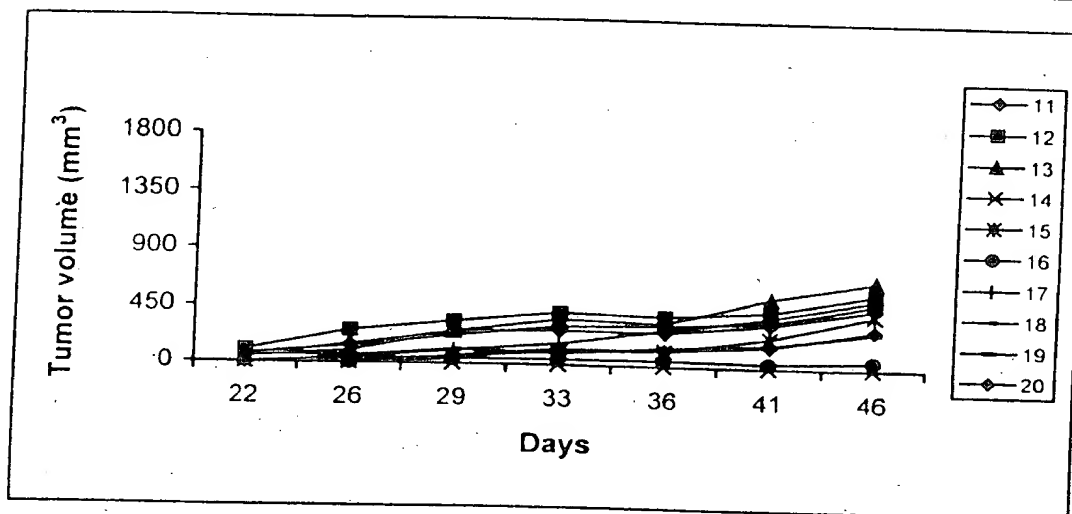
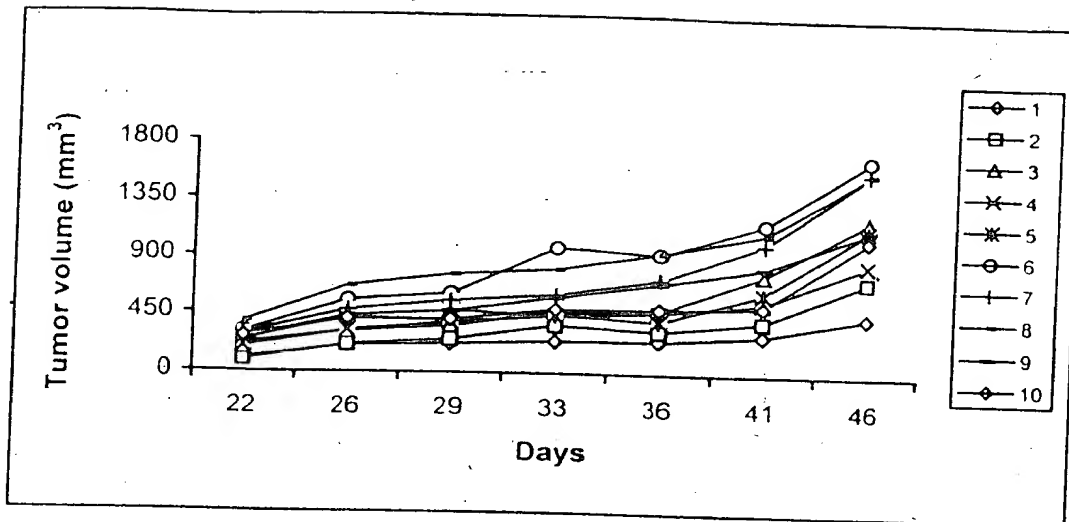


FIG. 54

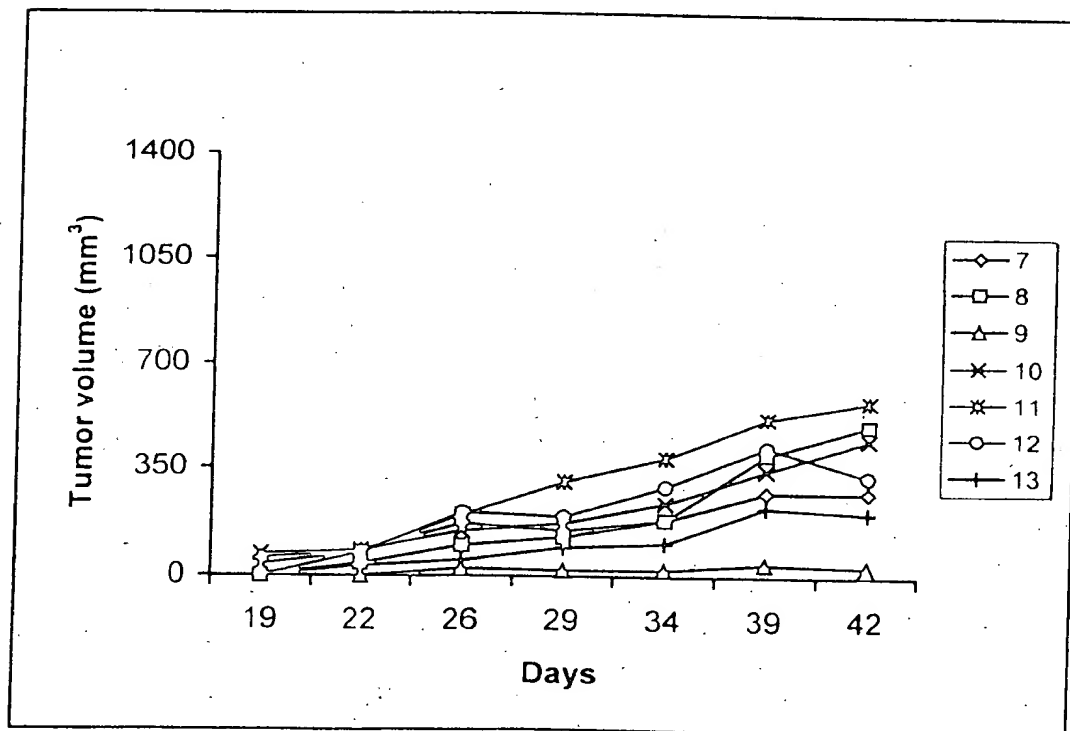
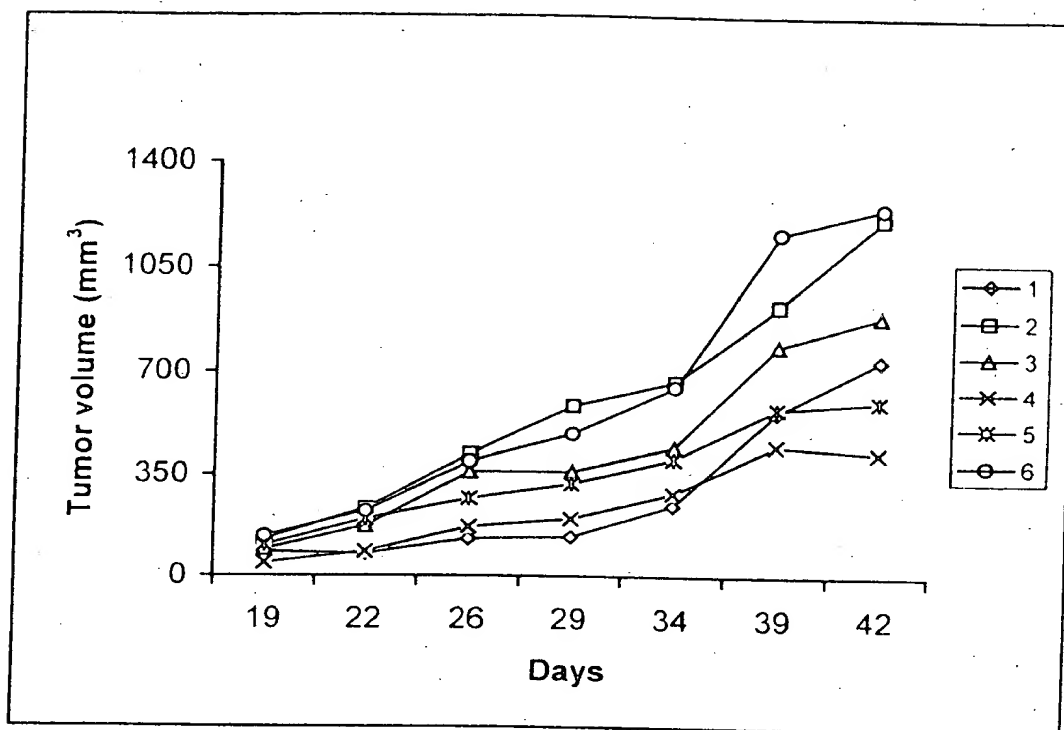


FIG. 55

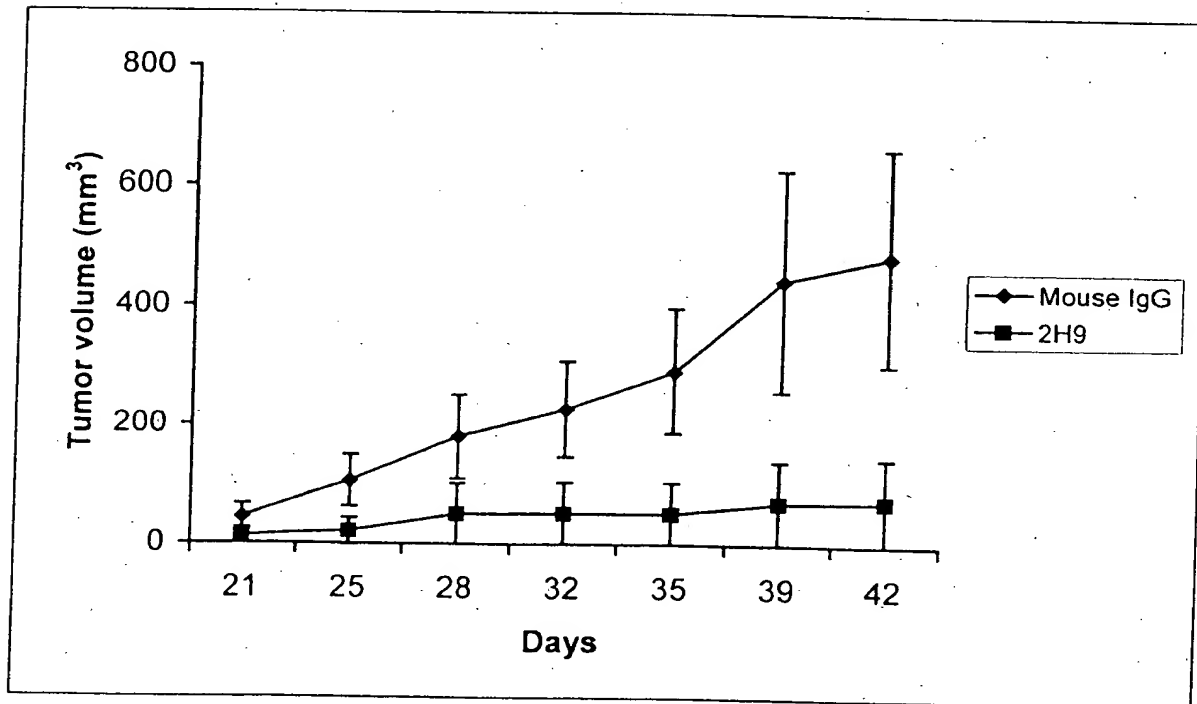
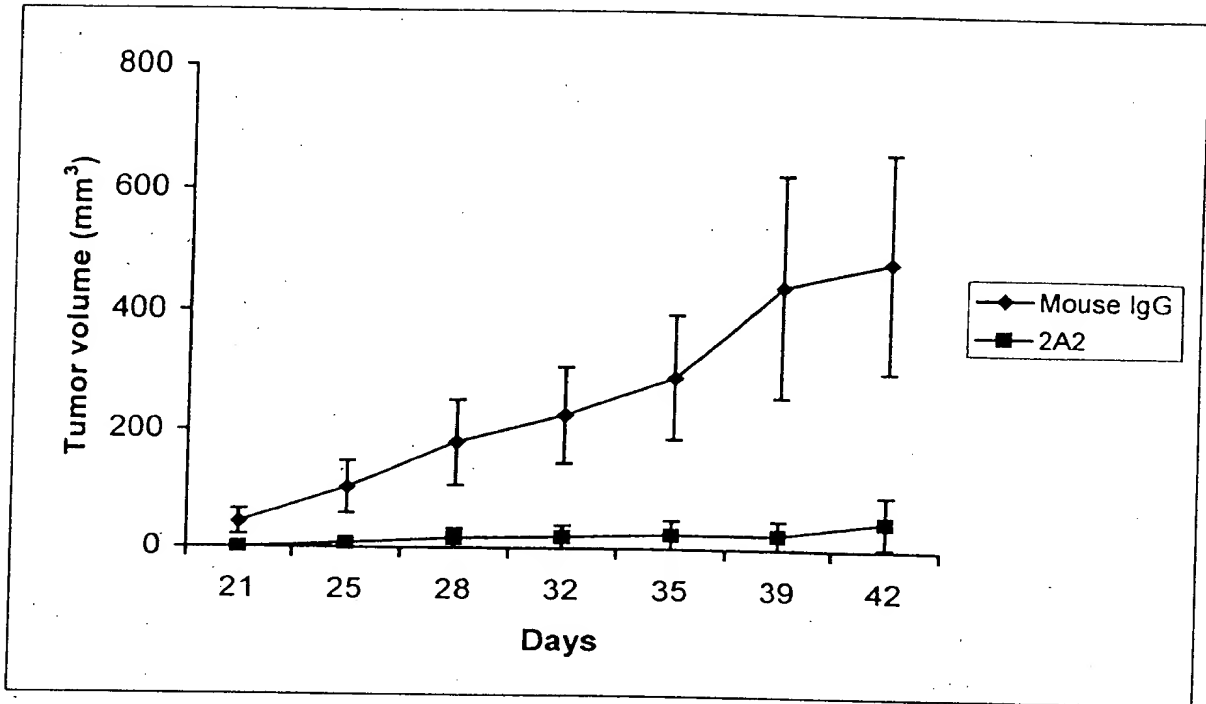


FIG. 56

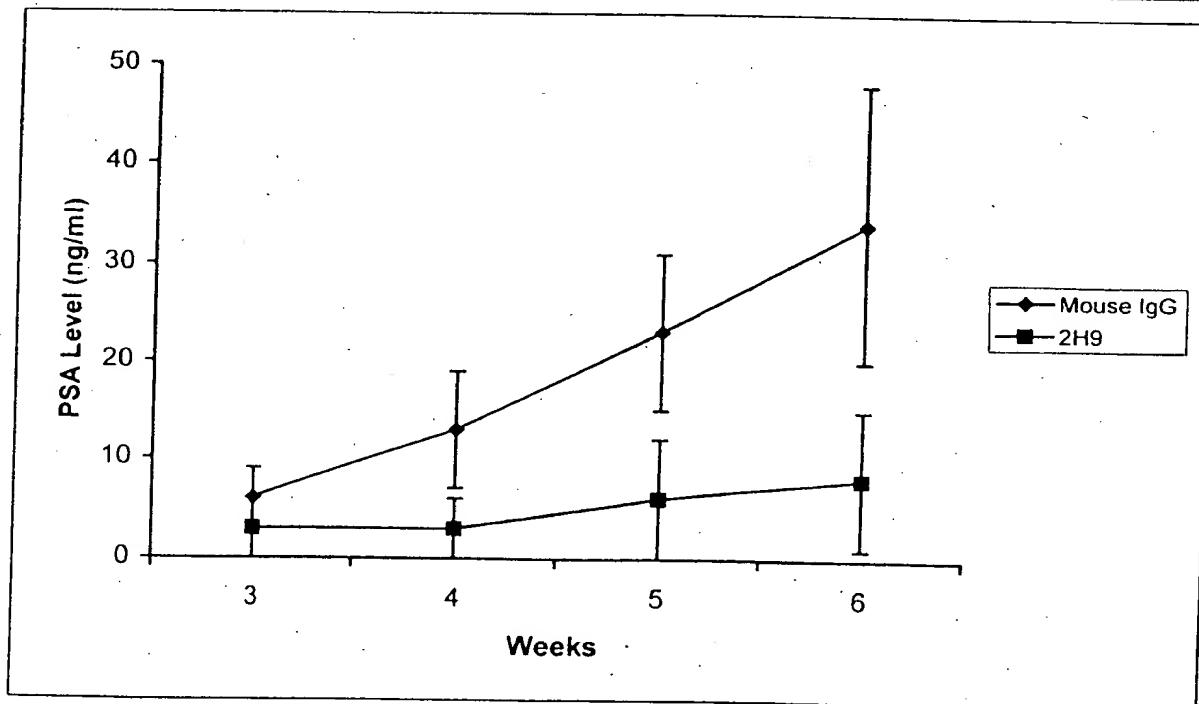
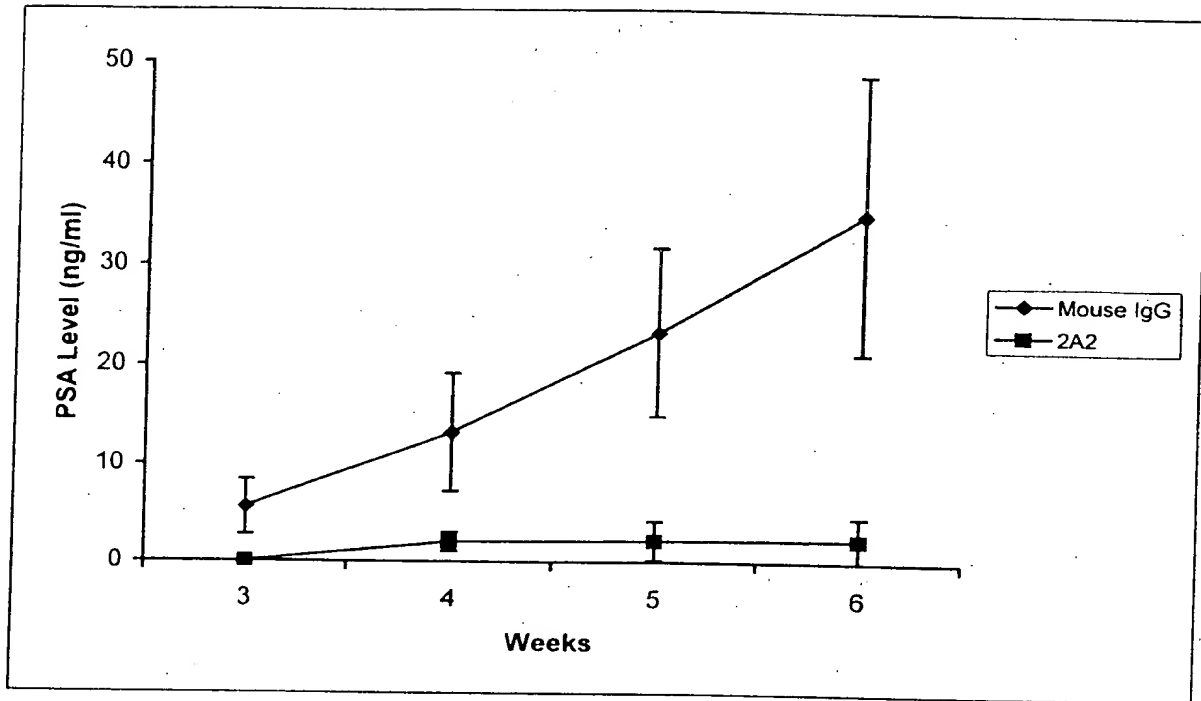


FIG. 57

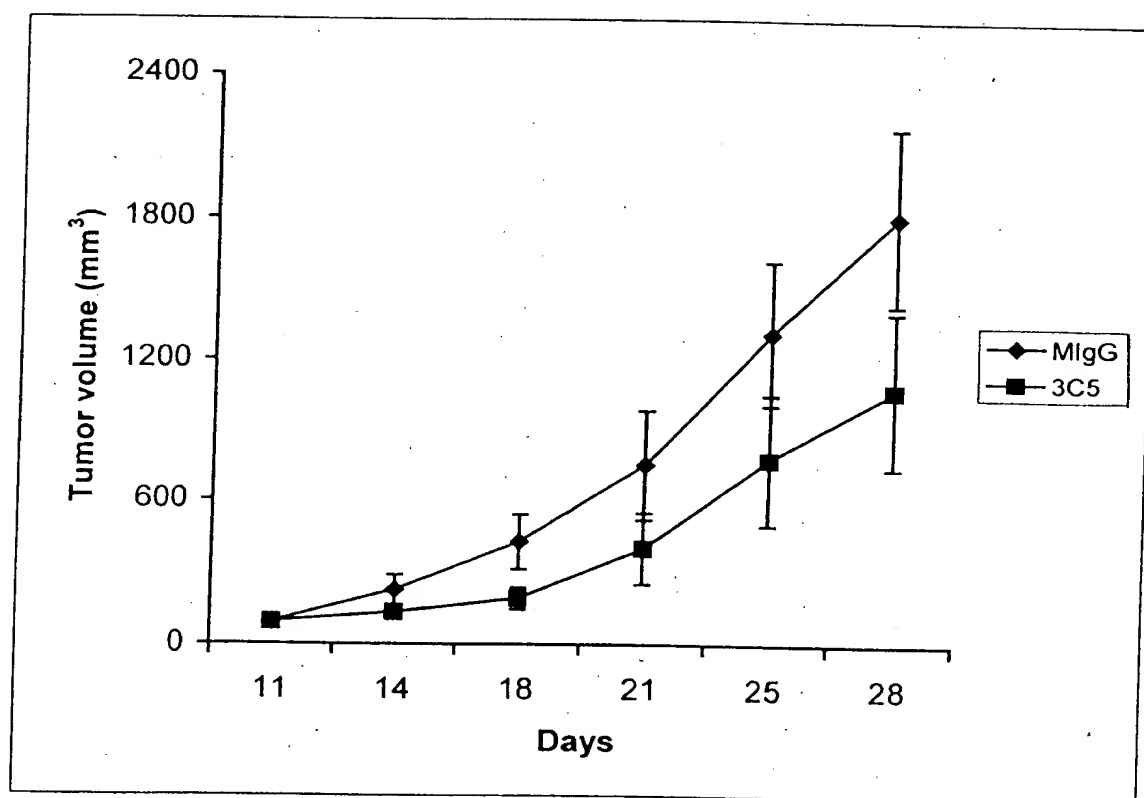


FIG. 58

TGCTTCTTCCTGATGGCAGTGGTTATAGGAGTCAATTACAGAGTTACAGCTGCAGCAGTCT 60
C F F L M A V V I G V N S E V Q L Q Q S 20

GGGCAGAACTTGTGAGGTCAGGGCCCTCAGTCAAGTTGCTCCTGCACAGCTTCTGGCTTC 120
G A E L V R S G A S V K L S C T A S G F 40

CDR1
AACATTAAAGACTACTATATACACTGGGTGAATCAGAGGCCCTGACCAGGGCCTGGAGTGG 180
N I K D Y Y I H W V N Q R P D Q G L E W 60

CDR2
ATTGGATGGATTGATCCTGAGAATGGTGACACTGAATTTGTCCCGAAGTCCAGGGCAAG 240
I G W I D P E N G D T E F V P K F Q G K 80

GCCACTATGACTGCAGACATTTTCTCCAACACAGCCCTACCTGCACCTCAGCAGCCTGACA 300
A T M T A D I F S N T A Y L H L S S L T 100

CDR3
TCTGAAGACACTGCCGTCTATTACTGTAAACCGGGGTTTCTGGGGCCCAAGGACTCTG 360
S E D T A V Y Y C K T G G F W G Q G T L 120

GTCACGTCTCTGCAGCCAAACGACACCCCATCTGTCTATCCACTG
V T V S A A K T T P P S V Y P L

FIG. 59

TTGGTAGCAACAGCCTCAGATGTCCACTCCAGGTCCAACTGCAGCAACCTGGGTCTGAA 60
L V A T A S D V H S Q V Q L Q Q P G S E 20

CTGGTAGGCCCTGGAACTTCAGTGAAGCTGTCTCCTGCAAGGCTTCTGGCTATACATTCTCC 120
L V R P G T S V K L S C K A S G Y T F S 40
CDR1

AGCTACTGGATGCACTGGGTGAAGCAGAGGCCTGGACAAGGCCTTGAGTGGATTGGAAT 180
S Y W M H W V K Q R P G Q G L E W I G N 60

ATTGACCCCTGGTAGTGGTTAACTAACTACGCTGAGAACCTCAAGACCAAGGCCACACTG 240
I D P G S G Y T N Y A E N L K T K A T L 80
CDR2

ACTGTAGACACATCCTCCAGCACAGCCTACATGCAGCTCAGCAGCCTGACATCTGAGGAC 300
T V D T S S S T A Y M Q L S S L T S E D 100

TCTGCAGTCTATTACTGTACAAGCCGATCTACTATGATTACGACGGGATTGCTTACTGG 360
S A V Y Y C T S R S T M I T T G F A Y W 120
CDR3

GGCCAAGGGACTCTGGTCACTGTCTCTGCAGCTACAACAACAGCCCACTGTCTATCCA 420
G Q G T L V T V S A A T T A P S V Y P 160

CTGGCC
L A

FIG. 60

AATGACTTCGGGTTGAGCTGGGTTTTATTATTATTGTTCTTTTAAAGGGTCCGGAGTGAA 60
N D F G L S W V F I I V L L K G V R S E 20

GTGAGGCTTGAGGAGTCTGGAGGAGGCTGGGTGCAACCTGGAGGATCCATGAAACTCTCC 120
V R L E E S G G G W V Q P G G S M K L S 40

TGTGTAGCCTCTGGATTTACTTTCAGTAATTACTGGATGACTTGGTCCGCCAGTCTCCA 180
C V A S G F T F S N Y W M T W V R Q S P 60
CDR1

GAGAAGGGCTTGAGTGGGTTGCTGAAATTCGATTGAGATCTGAAAATTATGCAACACAT 240
E K G L E W V A E I R L R S E N Y A T H 80
CDR2

TATCGGAGTCTGTGAAGGGAATTCACCATCTCAAGAGATGATTCAGAGTCGTCTC 300
Y A E S V K G K F T I S R D D S R S R L 100

TACCTGCAAAATGAACAACTTAAGACCTGAAGACAGTGAATTATTACTGTACAGATGGT 360
Y L Q M N N L R P E D S G I Y Y C T D G 120

CTGGACGACCTAACTGGGGCCAAAGGACTCTGGTCACTGTCTCTGCAGCCAAACGACA 420
L G R P N W G Q G T L V T V S A A K T T 140
CDR3

CCCCATCTGTCTATCCACTGGCCCCCTTGTA
P P S V Y P L A P C V

1277. 1278. 1279. 1280. 1281. 1282. 1283. 1284. 1285. 1286. 1287. 1288. 1289. 1290. 1291. 1292. 1293. 1294. 1295. 1296. 1297. 1298. 1299. 1300. 1301. 1302. 1303. 1304. 1305. 1306. 1307. 1308. 1309. 1310. 1311. 1312. 1313. 1314. 1315. 1316. 1317. 1318. 1319. 1320. 1321. 1322. 1323. 1324. 1325. 1326. 1327. 1328. 1329. 1330. 1331. 1332. 1333. 1334. 1335. 1336. 1337. 1338. 1339. 1340. 1341. 1342. 1343. 1344. 1345. 1346. 1347. 1348. 1349. 1350. 1351. 1352. 1353. 1354. 1355. 1356. 1357. 1358. 1359. 1360. 1361. 1362. 1363. 1364. 1365. 1366. 1367. 1368. 1369. 1370. 1371. 1372. 1373. 1374. 1375. 1376. 1377. 1378. 1379. 1380. 1381. 1382. 1383. 1384. 1385. 1386. 1387. 1388. 1389. 1390. 1391. 1392. 1393. 1394. 1395. 1396. 1397. 1398. 1399. 1400. 1401. 1402. 1403. 1404. 1405. 1406. 1407. 1408. 1409. 1410. 1411. 1412. 1413. 1414. 1415. 1416. 1417. 1418. 1419. 1420. 1421. 1422. 1423. 1424. 1425. 1426. 1427. 1428. 1429. 1430. 1431. 1432. 1433. 1434. 1435. 1436. 1437. 1438. 1439. 1440. 1441. 1442. 1443. 1444. 1445. 1446. 1447. 1448. 1449. 1450. 1451. 1452. 1453. 1454. 1455. 1456. 1457. 1458. 1459. 1460. 1461. 1462. 1463. 1464. 1465. 1466. 1467. 1468. 1469. 1470. 1471. 1472. 1473. 1474. 1475. 1476. 1477. 1478. 1479. 1480. 1481. 1482. 1483. 1484. 1485. 1486. 1487. 1488. 1489. 1490. 1491. 1492. 1493. 1494. 1495. 1496. 1497. 1498. 1499. 1500. 1501. 1502. 1503. 1504. 1505. 1506. 1507. 1508. 1509. 1510. 1511. 1512. 1513. 1514. 1515. 1516. 1517. 1518. 1519. 1520. 1521. 1522. 1523. 1524. 1525. 1526. 1527. 1528. 1529. 1530. 1531. 1532. 1533. 1534. 1535. 1536. 1537. 1538. 1539. 1540. 1541. 1542. 1543. 1544. 1545. 1546. 1547. 1548. 1549. 1550. 1551. 1552. 1553. 1554. 1555. 1556. 1557. 1558. 1559. 1560. 1561. 1562. 1563. 1564. 1565. 1566. 1567. 1568. 1569. 1570. 1571. 1572. 1573. 1574. 1575. 1576. 1577. 1578. 1579. 1580. 1581. 1582. 1583. 1584. 1585. 1586. 1587. 1588. 1589. 1590. 1591. 1592. 1593. 1594. 1595. 1596. 1597. 1598. 1599. 1600. 1601. 1602. 1603. 1604. 1605. 1606. 1607. 1608. 1609. 1610. 1611. 1612. 1613. 1614. 1615. 1616. 1617. 1618. 1619. 1620. 1621. 1622. 1623. 1624. 1625. 1626. 1627. 1628. 1629. 1630. 1631. 1632. 1633. 1634. 1635. 1636. 1637. 1638. 1639. 1640. 1641. 1642. 1643. 1644. 1645. 1646. 1647. 1648. 1649. 1650. 1651. 1652. 1653. 1654. 1655. 1656. 1657. 1658. 1659. 1660. 1661. 1662. 1663. 1664. 1665. 1666. 1667. 1668. 1669. 1670. 1671. 1672. 1673. 1674. 1675. 1676. 1677. 1678. 1679. 1680. 1681. 1682. 1683. 1684. 1685. 1686. 1687. 1688. 1689. 1690. 1691. 1692. 1693. 1694. 1695. 1696. 1697. 1698. 1699. 1700. 1701. 1702. 1703. 1704. 1705. 1706. 1707. 1708. 1709. 1710. 1711. 1712. 1713. 1714. 1715. 1716. 1717. 1718. 1719. 1720. 1721. 1722. 1723. 1724. 1725. 1726. 1727. 1728. 1729. 1730. 1731. 1732. 1733. 1734. 1735. 1736. 1737. 1738. 1739. 1740. 1741. 1742. 1743. 1744. 1745. 1746. 1747. 1748. 1749. 1750. 1751. 1752. 1753. 1754. 1755. 1756. 1757. 1758. 1759. 1760. 1761. 1762. 1763. 1764. 1765. 1766. 1767. 1768. 1769. 1770. 1771. 1772. 1773. 1774. 1775. 1776. 1777. 1778. 1779. 1780. 1781. 1782. 1783. 1784. 1785. 1786. 1787. 1788. 1789. 1790. 1791. 1792. 1793. 1794. 1795. 1796. 1797. 1798. 1799. 1800. 1801. 1802. 1803. 1804. 1805. 1806. 1807. 1808. 1809. 1810. 1811. 1812. 1813. 1814. 1815. 1816. 1817. 1818. 1819. 1820. 1821. 1822. 1823. 1824. 1825. 1826. 1827. 1828. 1829. 1830. 1831. 1832. 1833. 1834. 1835. 1836. 1837. 1838. 1839. 1840. 1841. 1842. 1843. 1844. 1845. 1846. 1847. 1848. 1849. 1850. 1851. 1852. 1853. 1854. 1855. 1856. 1857. 1858. 1859. 1860. 1861. 1862. 1863. 1864. 1865. 1866. 1867. 1868. 1869. 1870. 1871. 1872. 1873. 1874. 1875. 1876. 1877. 1878. 1879. 1880. 1881. 1882. 1883. 1884. 1885. 1886. 1887. 1888. 1889. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1899. 1900. 1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908. 1909. 1910. 1911. 1912. 1913. 1914. 1915. 1916. 1917. 1918. 1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936. 1937. 1938. 1939. 1940. 1941. 1942. 1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958.

| | | | | | | | | | | | | |
|------|--------------------|---------|---|---|---|---|---|---|---|---|---|---|
| 1G8 | 1gG _{1k} | Middle | G | F | N | I | K | D | Y | Y | I | H |
| 2H9 | 1gG _{1k} | N-Term. | G | F | T | F | S | N | Y | W | M | T |
| 4A10 | 1gG _{2ak} | N-Term. | G | Y | T | F | S | S | Y | W | M | H |

| | | | | | | | | | | | | | | | | | | | | |
|------|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1G8 | 1gG _{1k} | W | I | D | P | E | N | G | D | T | E | F | V | P | K | F | Q | G | | |
| 2H9 | 1gG _{1k} | E | I | R | L | R | S | E | N | Y | A | T | H | Y | A | E | S | V | K | G |
| 4A10 | 1gG _{2ak} | N | I | D | P | G | S | G | Y | T | N | Y | A | E | N | L | K | T | | |

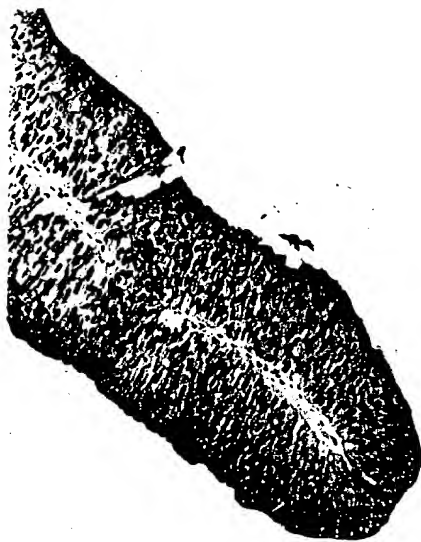
[illegible]

FIG. 62

A



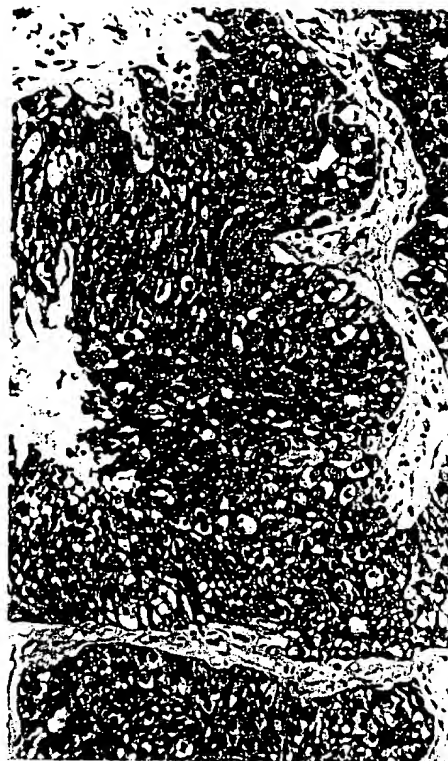
B



C



D



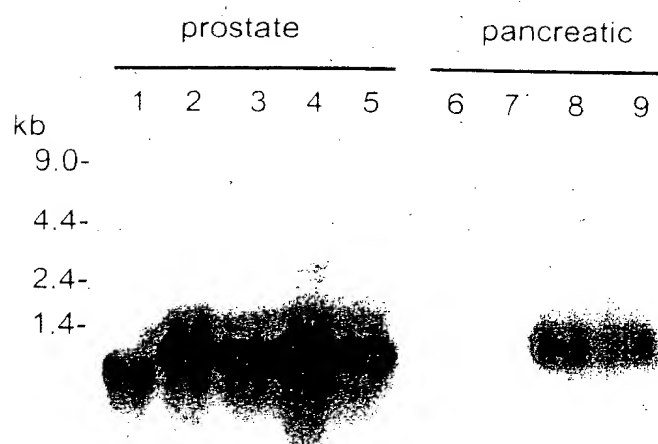
[illegible]

FIG. 64

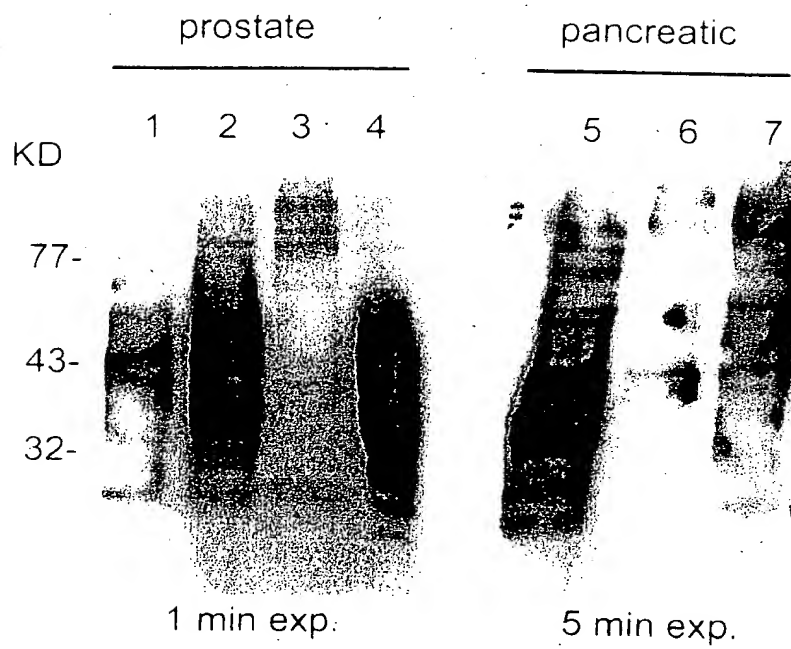


FIG. 65

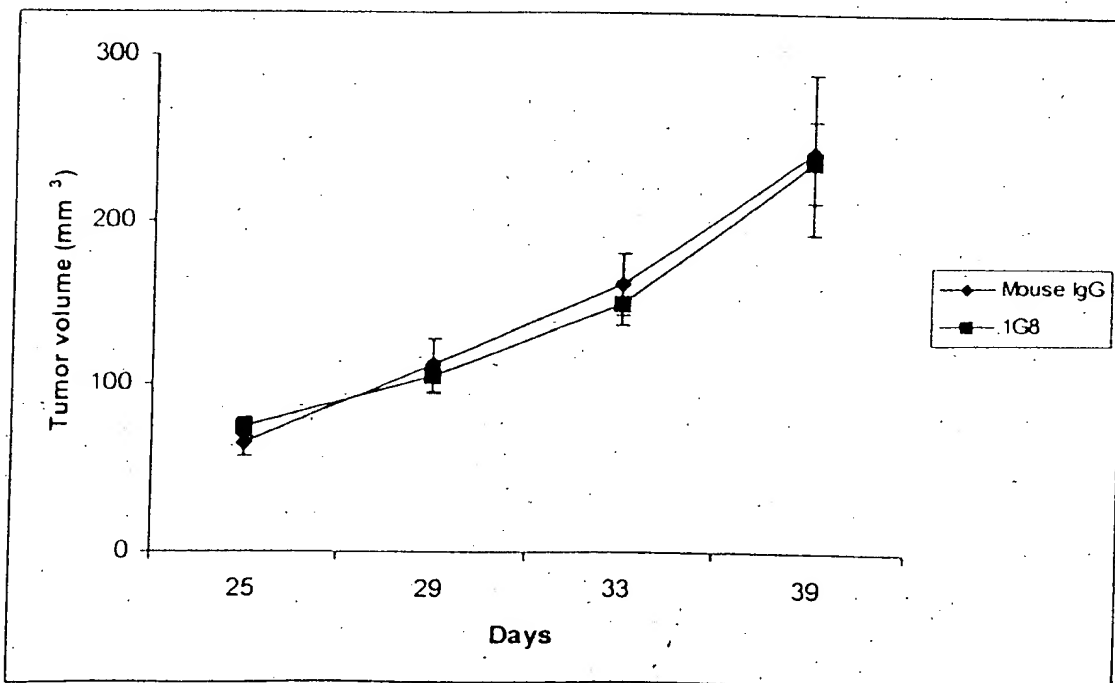
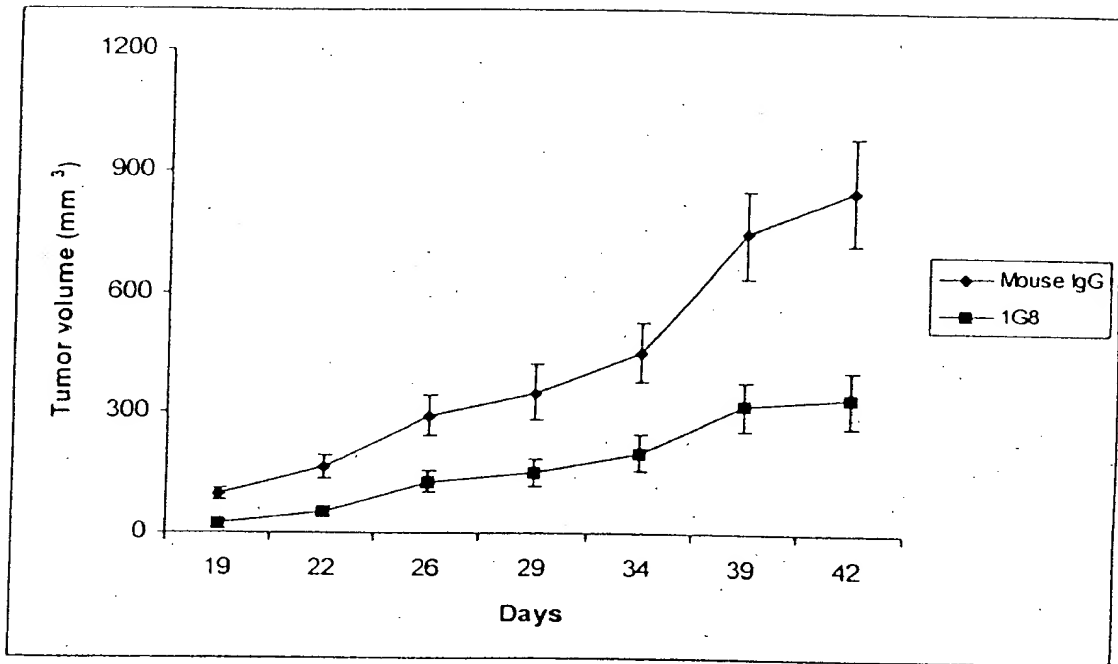
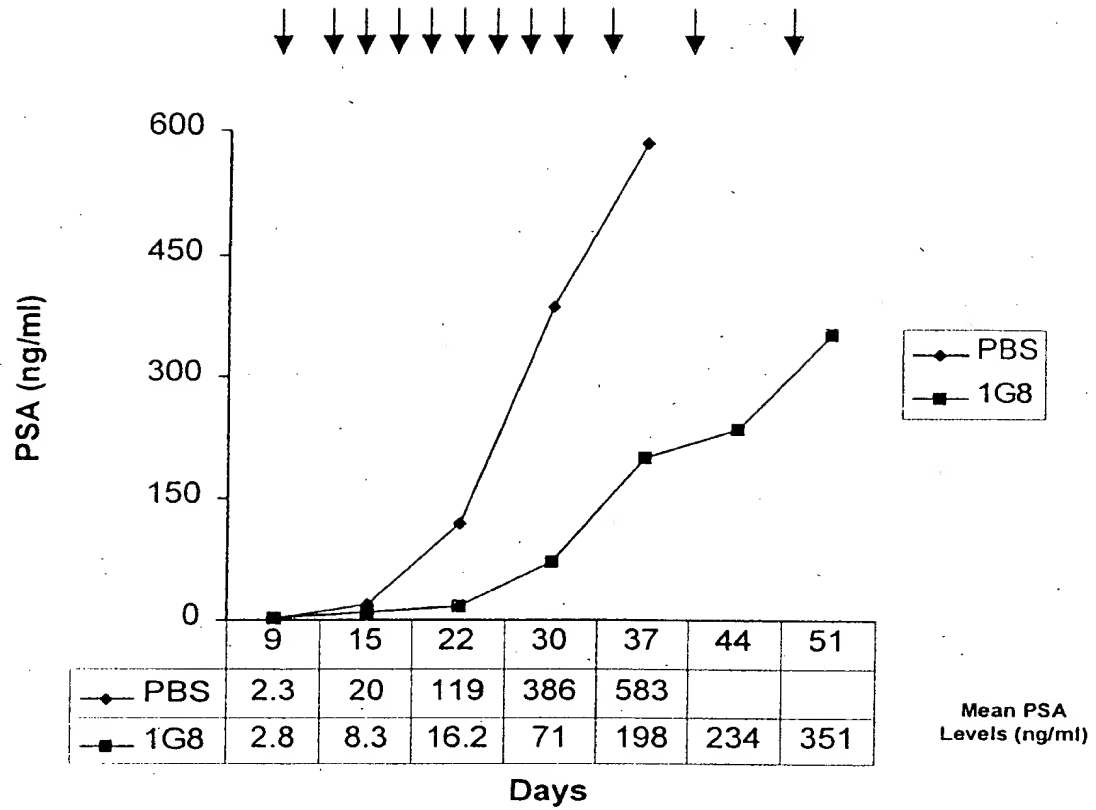


FIG. 66

A)



B)

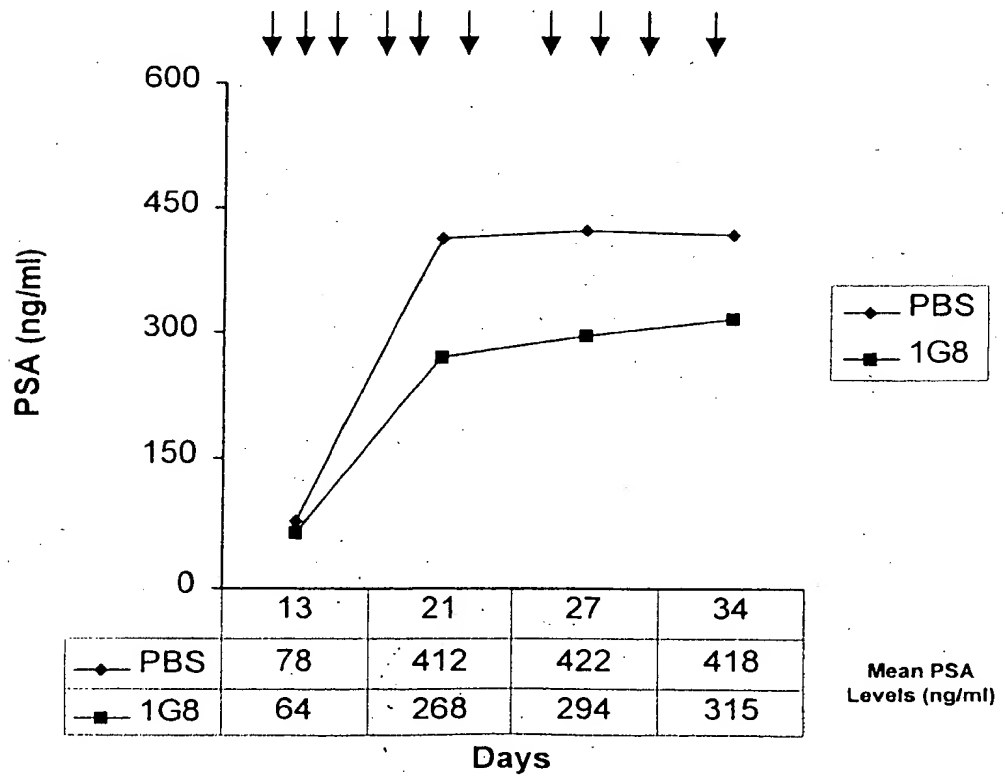
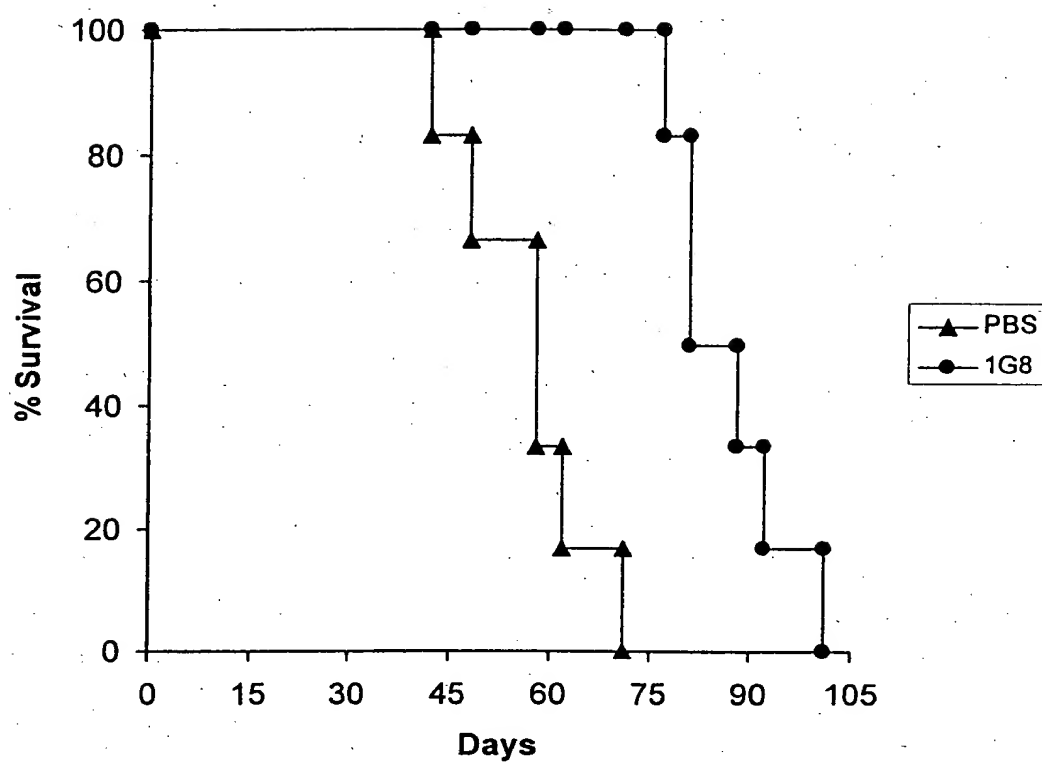


FIG. 67

A)



B)

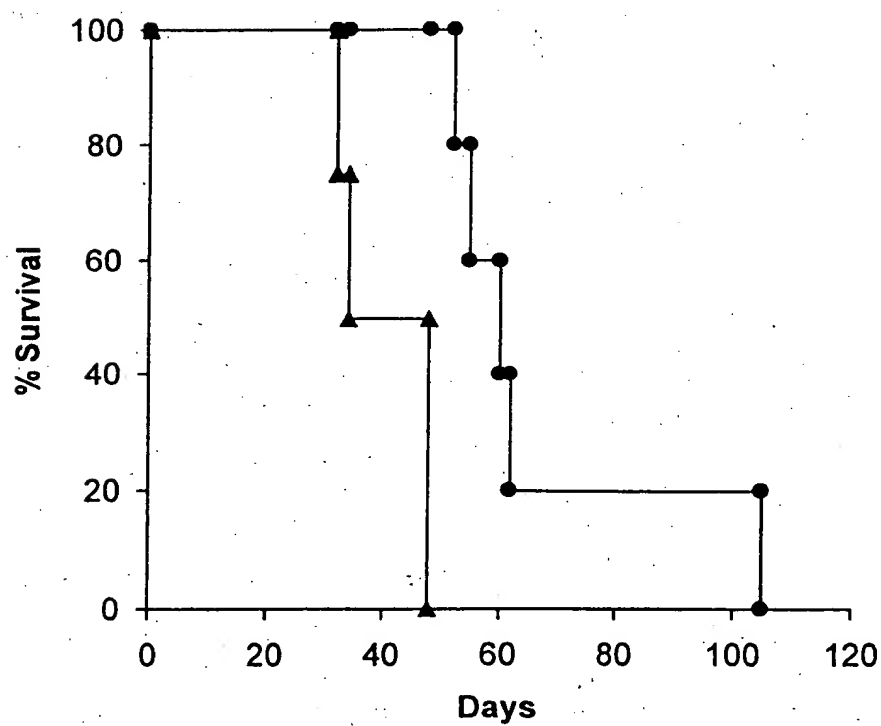
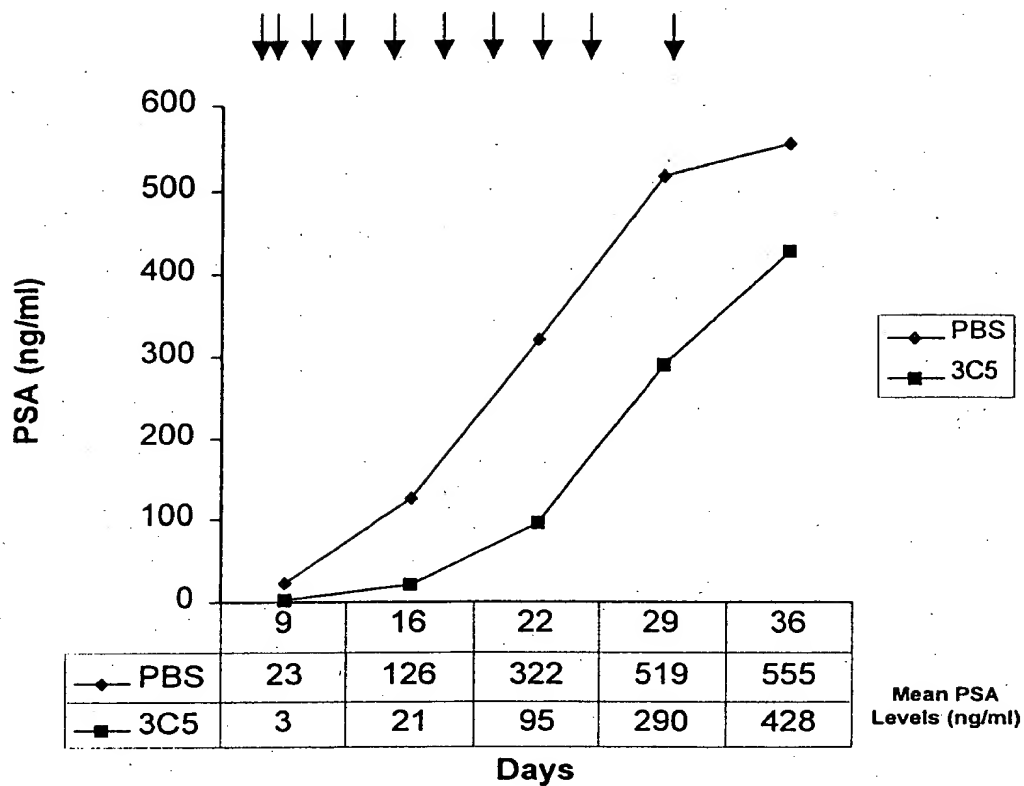


FIG. 68

A)



B)

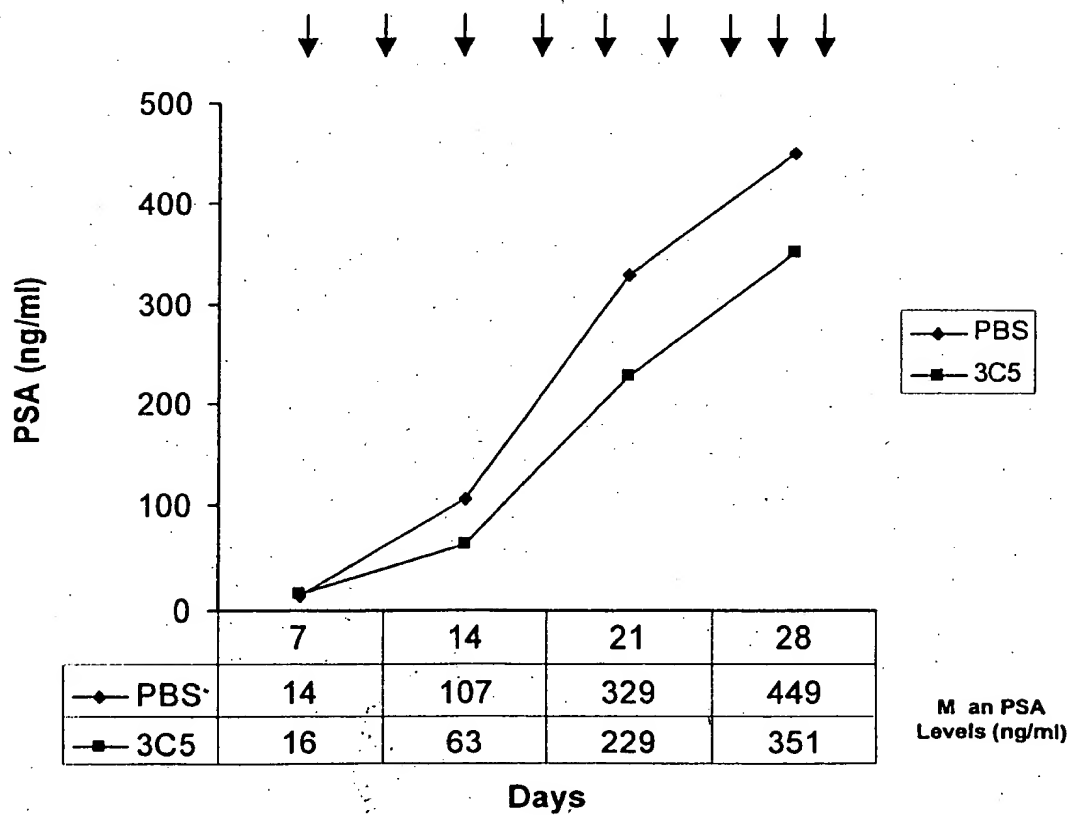
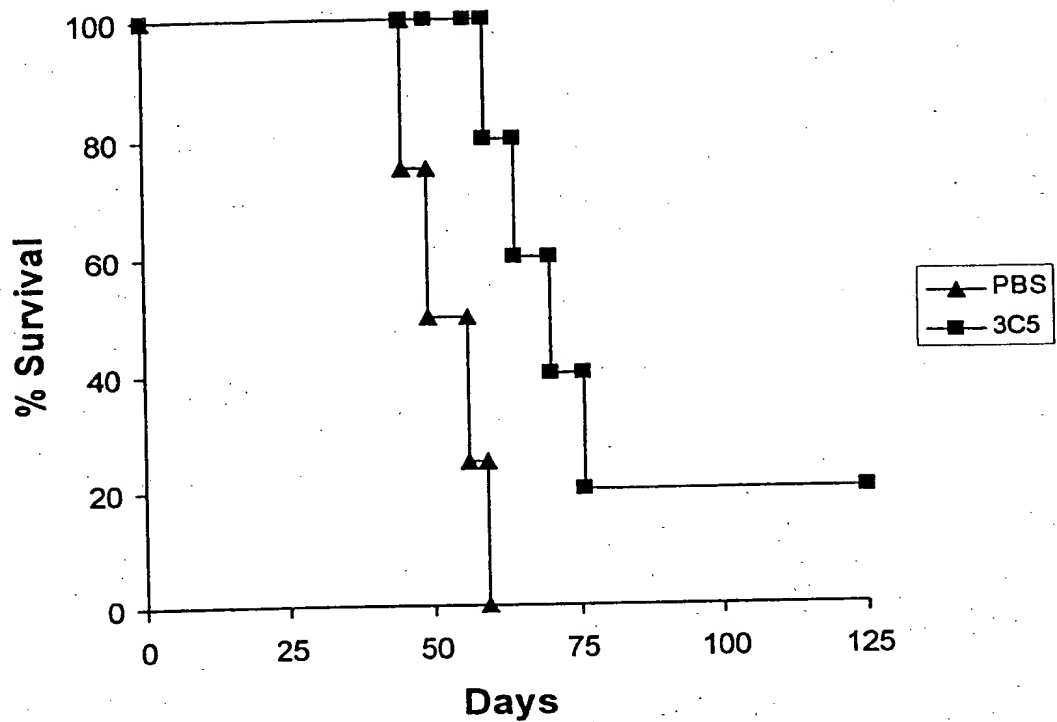


FIG. 69

A)



B)

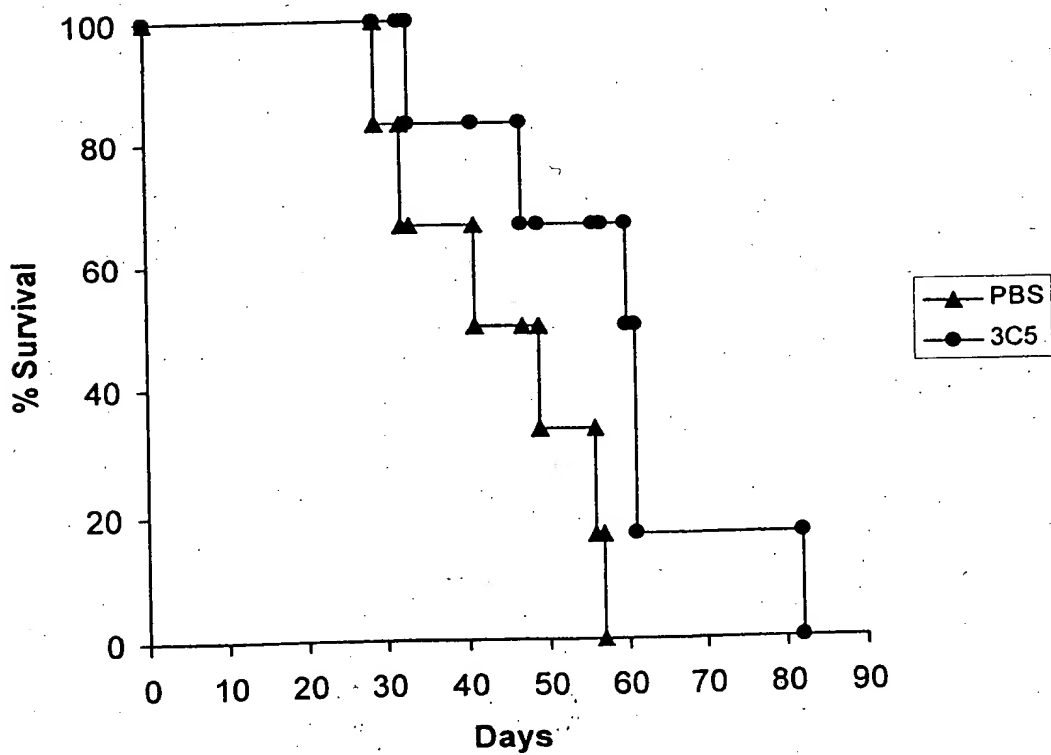


FIG. 70

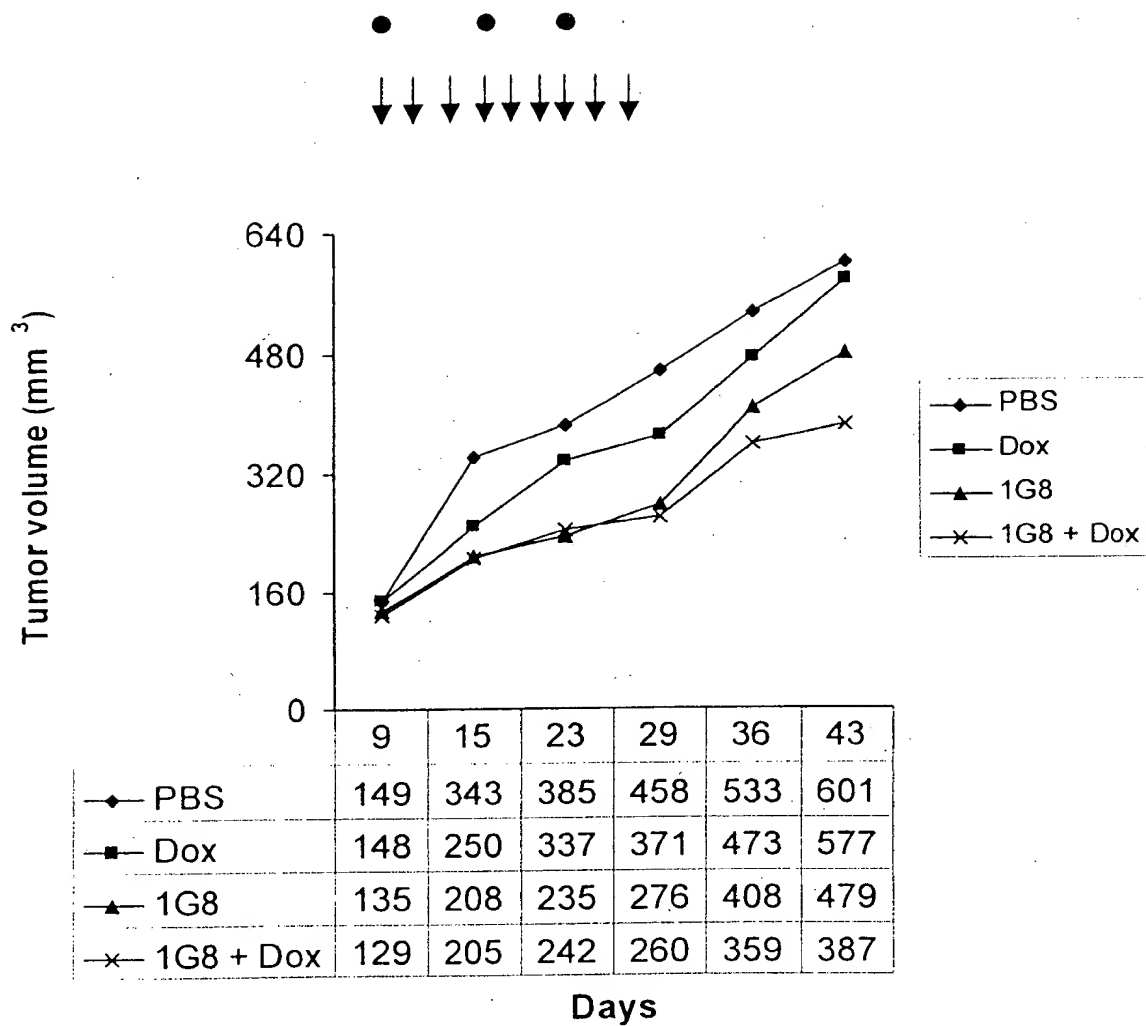
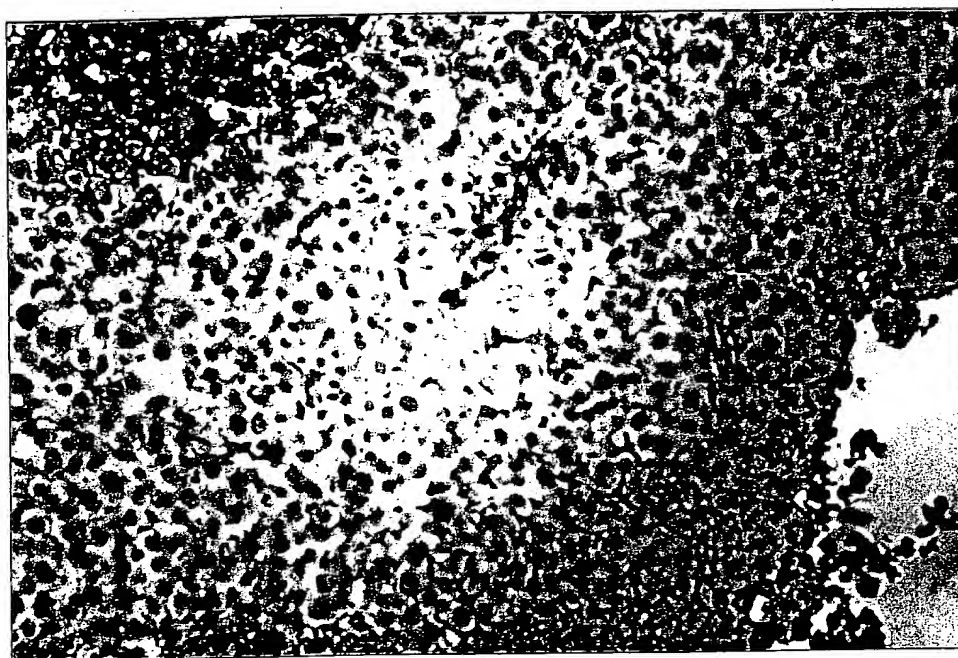
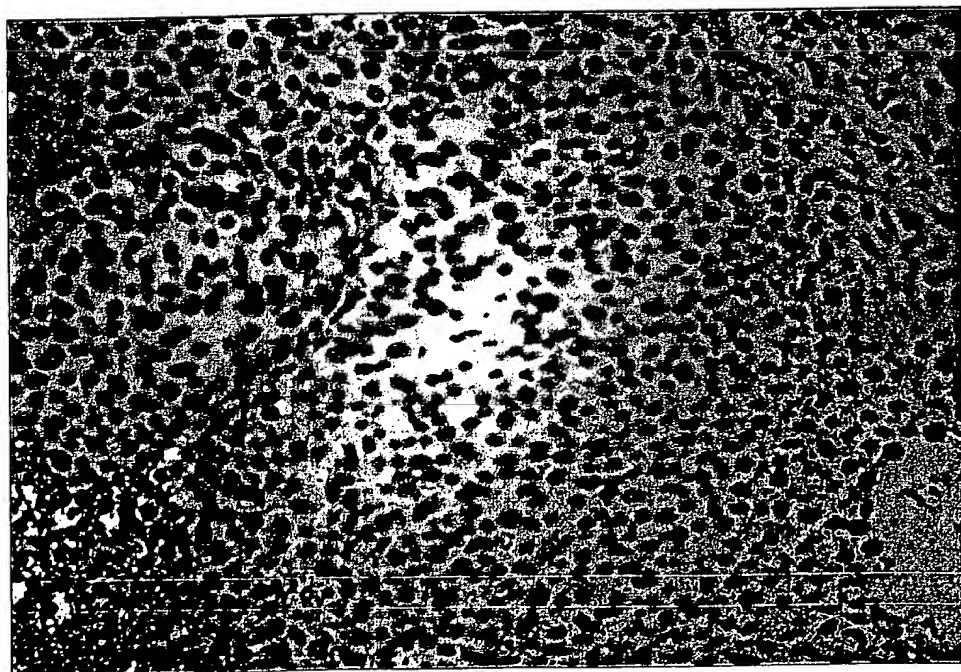


FIG. 71

3C5 Treated



mIgG Treated



405273 6343360

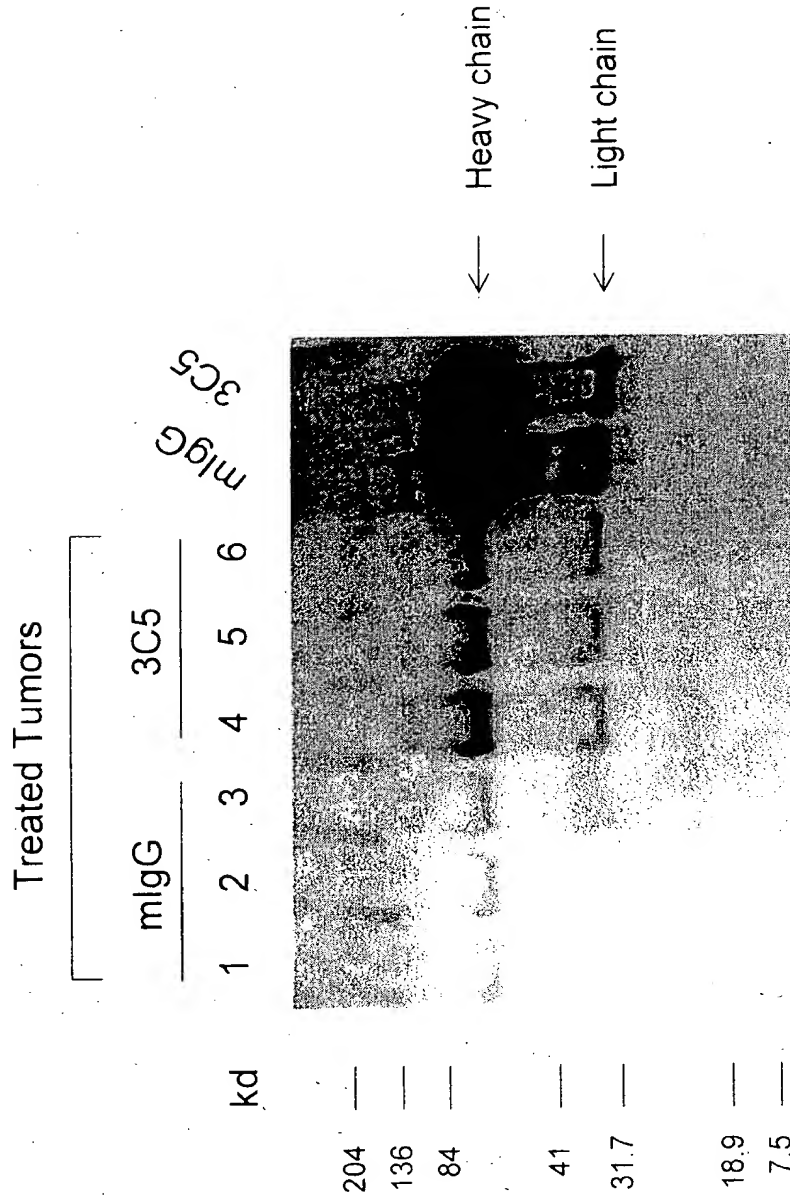


FIG. 72

40520 234300

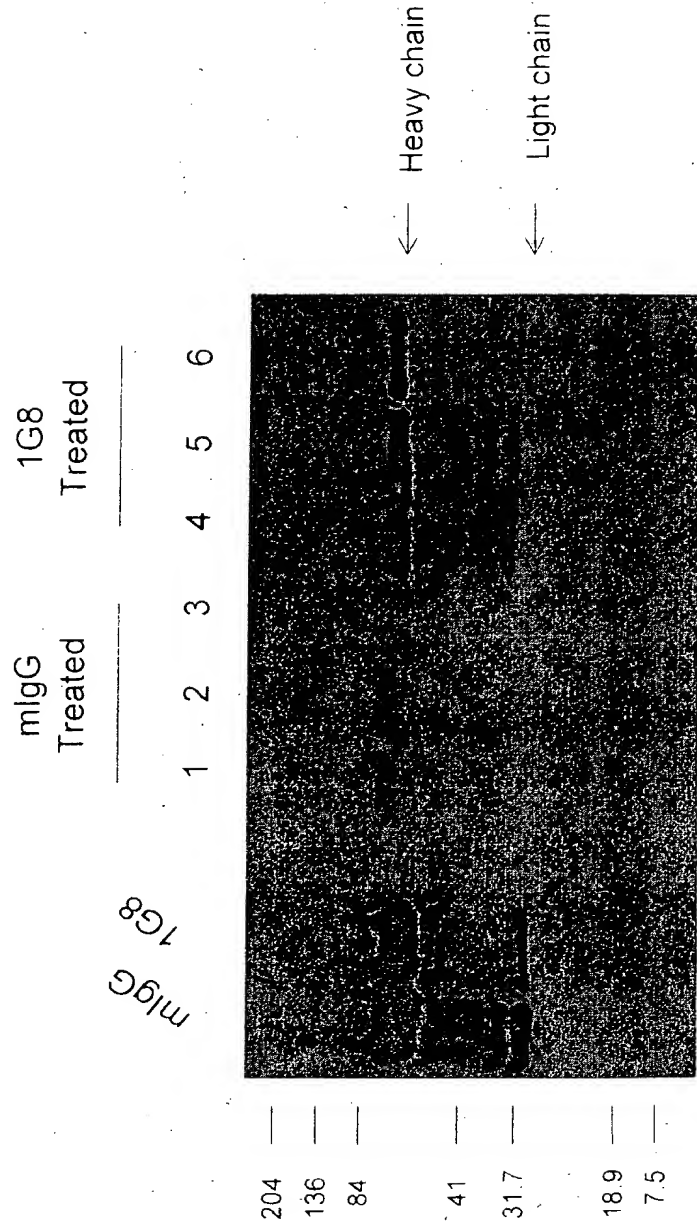


FIG. 73